SANDGROUSE

Volume 22 (1) *2000*

ORNITHOLOGICAL SOCIETY OF THE MIDDLE EAST

OSME

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- To promote an interest in ornithology and bird conservation throughout the Middle East.
- To develop productive working relationships with other governmental and non-governmental organisations with an interest in conservation and/or natural history in the region.

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OSME publishes a scientific journal, *Sandgrouse*, containing papers, news and features on all aspects of Middle Eastern ornithology. Published twice yearly, it is issued free to members. Further copies are available for sale from OSME.

MEETINGS

An Annual General Meeting is held in London at which guest speakers provide new perspectives on ornithology in the region. There are also occasional special meetings, some taking place outside the UK.

PROJECTS

OSME organises field expeditions to collect data on birds in little-known parts of the region and in areas where OSME can assist by teaming up with local groups.

The Conservation & Research Committee grants funds to valuable field projects and desk studies which further knowledge and conservation of birds in the region. Grants have been awarded to over 30 projects since the Conservation & Research Fund was set up in 1982.

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Sandgrouse 22(1) **Erratum**
Due to unforeseen circumstances, the photographs on 72 and 79 (Plate 2) were inadvertently reversed as this volume went to press. Our sincerest apologies go to the photographers and authors concerned.
Guy M. Kirwan, Editor

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Grey Heron *Ardea cinerea*,
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at Al Ansab, Oman.

OSME is grateful for sponsorship from Greentours Natural History Holidays towards the cost of printing the colour photographs inside this issue.

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OSME News

OBITUARY

J. S. (Simon) M. Albrecht

Following his recent illness, Simon's death saddened all those who had hoped the treatment he had decided to undergo would restore him to health. Simon's enthusiasm for ornithology and Turkey were well known. After graduating from Southampton University, he became a teacher, a profession that gave him scope to impart to a younger generation his love of the natural world. From October 1976 to June 1978 he taught in Ereğli, Turkey, where the results of his birding activities were to grace the pages of the *OST* and *OSME Bulletins* and *Sandgrouse*. Unsurprisingly, Simon soon returned to Turkey (Borçka) as a member of one of the teams that studied the north-east Pontics raptor migration route. In 1980 he joined OSME Council and devotedly served as the Society's Sales Officer for ten years. Simon's decision, in 1983, to lead a small party to make a preliminary survey of the breeding birds of Thrace immediately attracted my interest. Unfortunately we fell foul of the military government's regulations and were detained for almost two months. Only seven years later were we finally cleared of the charges brought against us. On his return to England Simon opted for self-employment, but his eventual acceptance of a teaching post in Kent was unsurprising given his obvious vocation. In the years that followed Simon contributed a number of notes on Turkish birds that highlighted the meticulous nature of his fieldwork in the Black Sea region in the late 1970s. In addition to his position as Sales Officer, Simon also compiled the News & Information section of *OSME Bulletin* and subsequently *Sandgrouse*. Above all, however, my recollection of Simon will always be as a family man with his bravely supportive wife, Stephanie, and his daughters, Kuthaya (named after a Turkish town famous for its fine ceramics), Rachael and Bethany.

Dennis K. Buisson

NEWS & INFORMATION

compiled by Derek Moore

The aim of this section is to inform readers about events in the OSME region. It relies on members and others supplying relevant news and information. If you have anything concerning birds, conservation or development issues in the OSME area please send it to News and Information, OSME, c/o The Lodge, Sandy, Bedfordshire SG19 2DL, U. K.

This section is not intended as a definitive report or write-up of the projects concerned. Many of the projects are sponsored; such support is appreciated but is not generally given acknowledgement here.

GENERAL

The Northern Bald Ibis reintroduction workshop report has just been published, entitled 'International workshop on a strategy for the rehabilitation of Northern Bald Ibis *Geronticus eremita*', the workshop was held in Agadir in March 1999. The 34 participants came from nine countries, and included all the main specialists in Bald Ibis ecology and rehabilitation. The workshop brought together experience of all previous unsuccessful attempts to release birds, and by combining this with what is known for wild birds, criteria were developed for site selection, release

methods, the source of birds for release, post-release and veterinary procedures and success criteria. The gaps in current knowledge were highlighted for the next stages of developing a release method with precautions for making sure that such work does not jeopardise the remaining wild birds, whose conservation remains the highest priority. Copies of the 50-page report are available by e-mail from: Chris.Bowden@rspb.org.uk. (Source: Chris Bowden *in litt.* July 1999.)

Wheatears book A new work by Panov, *Wheatears of the Palearctic: ecology, behaviour, evolution*, has been published by KMK Scientific Press, Moscow. Unfortunately, for most OSME members, the book is entirely in Russian. The monograph's 342 pages examine the systematics, habitats, annual cycle and nesting period, social behaviour, breeding biology, moult and departure to winter quarters, and biological remarks for 15 species: *Oenanthe isabellina, O. oenanthe, O. xanthoprymna* and *O. chrysopygia* (the author considers these two forms to constitute a superspecies), *O. moesta, O. finschii, O. lugens, O. picata, O. alboniger, O. leucopyga, O. leucura, O. hispanica, O. pleschanka* (with a very full discussion of this species' hybrid zones), *O. monacha* and *O. deserti*. The author argues that *Oenanthe* is a comparatively young group of species, which permits the study of initial and subsequent stages of species-formation and divergence in morphological, ecological and behavioural terms. (Source: Jevgeni Shergalin *in litt.* November 1999.)

IRAN

The Greater Flamingo ringing project at Lake Urmia, in the north-west of the county was initiated in August 1970, when 242 moulting adults were ringed using conventional leg-rings and 2000 pulli were fitted with blue neck-bands. By the end of the 1998 breeding season, a total of 26,318 pulli and 680 adults had been ringed. A total of 214 recoveries (0.74%) from 27 countries has been reported. Of these, only five involved birds with blue neck-bands. The recoveries range from Morocco, in the west, east to Sudan, India and Sri Lanka, and demonstrate the very wide post-juvenile dispersal by Greater Flamingo *Phoenicopterus ruber*. Adults from the Lake Urmia colony, however, appear to winter almost entirely in Fars (central Iran) and on the Persian Gulf coast. (Source: Jevgeni Shergalin *in litt.* October 1999.)

JORDAN

Threat to Aqaba Sewage Works Reports have been received that the proposed new international airport planned for Aqaba will lead to the closure of the town's sewage works. Reports also suggest that a new works may be constructed in the mountains/Wadi Yutum east of the town. The sewage works adds considerable variety to the region's biodiversity as it contains small pools, reedbeds and plantations, as well as more formal sludge lagoons. Exciting species are regularly recorded at Aqaba sewage works, including the first Cotton Teal *Nettapus coromandelianus* for Jordan. (Source: Fares Khoury, RSCN.)

KUWAIT

The Ornithological Society of Kuwait (OSK) was recently inaugurated. It aims to place ornithology in Kuwait on a modern basis and to this end has initiated the following projects. Daily Bird Record Sheets are available for use and all records from 1 January 2000, however common, are requested in order that an annual report can be produced. Secondly, new Rare Bird Description Forms should now be available and the society also intends to undertake a review of previous rarity records. To this end, documentation for past reports is requested for all species with fewer than ten records in the country, even if already published or submitted elsewhere. Correspondence concerning the society should be addressed to G. Gregory, Acting Secretary, OSK, K. E. S., P. O. Box 8640, Salmiya 22057, Kuwait. (Source: G. Gregory *in litt.* September 1999).

SAUDI ARABIA

British Vulture Conservation Society (BCVS) was launched at the World Conference on Birds of Prey, held in South Africa in 1998. The BVCS is now involved in a collaborative project with the National Commission for Wildlife Conservation and Development (NCWCD) in Saudi Arabia that aims to determine the present distribution and status of Lammergeier *Gypaetus barbatus*, Griffon Vulture *Gyps fulvus* and Egyptian Vulture *Neophron percnopterus* within the country. Fieldwork, designed to survey the formerly known ranges of these species, identify nesting areas, discover causes of mortality and estimate current population sizes, was set to commence in late 1999. For more

information concerning the BVCS contact: Martin Foulds, Director, British Vulture Conservation Society, Linton Zoological Gardens, Hadstock Road, Linton, Cambridge CB1 6NT, U. K.

SOCOTRA

The birds and plants of Socotra is a new, 48-page, booklet that provides an introduction to and illustrations of some of the common/key species that occur within the archipelago. The accompanying text, which provides a basic introduction to the conservation ethic, is in English and Arabic. The booklet will serve as an important tool within the Socotra education programme, part of the ongoing four-year biodiversity project funded by the Darwin Initiative (see *Sandgrouse* 19: 86), and was written by Tony Miller and Richard Porter. A range of organisations, including GEF, UNDP and UNOPS, were involved in its production. (Source: Richard Porter *in litt.* December 1999.)

UNITED ARAB EMIRATES

Contact Numbers in Dubai Due to widespread changes in telephone numbers from six-digit to seven-digit throughout the United Arab Emirates, Colin Richardson of the Emirates Bird Records Committee has advised that his new numbers are as follows: tel. 009714 347-2277, fax. 347-2276. For any birdwatching inquiries or record submissions he can also be contacted on e-mail at: colinr@emirates.net.ae.

Harrier slaughter A number of visiting birdwatchers were horrified to find over 40 shot harriers (Pallid *Circus macrourus*, Montagu's *C. pygargus* and Marsh *C. aeruginosus*) at one of the country's top birding sites this autumn. The corpses were left hanging as trophies from sprinkler heads in the vast grass meadows inside the Al Ain camel track. These fields are renowned for attracting 1000s of migrants as they either end or commence their journey across the Empty Quarter to the south. The shooting of harriers has been taking place in the fields for several years, but rarely with such intensity and, on instructions from the highest level. A number of contacts were made with the authorities and we are assured that the shootings will not occur again. Any similar activities will be investigated, if reported to the Managing Director, Environmental Research and Wildlife Development Agency (ERWDA), P. O. Box 45553, Abu Dhabi. (Source: Colin Richardson.)

Inauguration of Al Wathba Nature Reserve HRH Prince Charles of Great Britain, who was on an official visit to the United Arab Emirates, formally inaugurated the Al Wathba Nature Reserve (formerly known as Al Ghar Lake), Abu Dhabi's prime wetland site, in mid-November. The reserve, which is managed by the Environmental Research and Wildlife Development Agency (ERWDA) covers several dozen hectares of sabkha (salt flats), flooded through discharge of treated effluent from a nearby sewage plant and with saline water recycled after irrigating the nearby Al Wathba Camel Track (another key UAE site). The lake is surrounded by sand dunes with exposed low aeolianite fossil sand dunes, while fencing to exclude livestock has permitted a rapid recovery of the indigenous flora. Approximately 40 km east of Abu Dhabi Island, Al Wathba Lake has a site list of over 200 species. It holds regionally important breeding populations of Black-winged Stilt *Himantopus himantopus* and Kentish Plover *Charadrius alexandrinus*, is the only breeding locality in the Emirates for Avocet *Recurvirostra avosetta* and in winter 1998–99 was the site of the first successful breeding in Arabia of Greater Flamingo *Phoenicopterus ruber*. It also has the largest numbers of wintering ducks and grebes in the Emirates, as well as 1000s of wintering waders. A key aspect of the ERWDA management plan, besides continuing scientific research, is the role Al Wathba Lake can play as a centre for the promotion of environmental awareness, while a system to permit easy access by local and visiting birders is planned. OSME Chairman, Andrew Grieve, was among the consultants involved by ERWDA in planning for the reserve, as well as local OSME members. (Source: Peter Hellyer.)

REQUESTS *for* INFORMATION

Gamebird surveys in Jordan

The Royal Society for the Conservation of Nature (RSCN), Jordan, is undertaking extensive surveys to estimate the current distribution and numbers of gamebird species in the country. The Research and Survey Section at RSCN requires voluntary workers with experience of Middle Eastern bird species. Volunteers must be prepared to spend up to three weeks in Jordan and will have the opportunity to visit different habitats and archaeological sites, and observe typical and rare birds. For further information, please contact Dr Fares Khoury, Research and Survey Section, Royal Society for the Conservation of Nature, P. O. Box 6354, Amman 11183, Jordan. Tel. 009626 5337931/2. Fax. 009626 5347411. E-mail: research@rscn.org.jo.

South Turkey: request for sightings of colour-ringed Kentish Plovers

T. Székely and his team have ringed nearly 3000 Kentish Plovers *Charadrius alexandrinus* at Tuzla Gölü, Çukurova Delta, between 1996 and 1999. Many were individually marked with colour rings. The flanks and belly of a few birds were also dyed yellow. If you have any information about these plovers, please contact Tamás Székely, School of Biological Sciences, University of Bristol, Woodland Road, Bristol BS8 1UG, U. K. E-mail: t.szekely@bristol.ac.uk.

Colour-ringed Cormorants and Great Black-headed Gulls from the Black Sea

Almost 1500 fledgling Cormorants *Phalacrocorax carbo* were colour-ringed during the 1999 breeding season at different colonies in the Sivash, a major wetland between the Black and Azov Seas. The ringing expedition, jointly undertaken by the Azov-Black Sea Ornithological Station (Melitopol, Ukraine) and the Italian Wildlife Institute (INFS, Ozzano Emilia), was funded by the Fishery Directorate of the Italian Ministry of Agricultural Policies, within a project aimed to assess the origin and trend of the Central Mediterranean wintering population of Cormorants. A by-product of the expedition was the colour ringing of 50 Great Black-headed Gulls *Larus ichthyaetus*. We do not plan to repeat Cormorant ringing in the near future. Therefore, it is extremely important to obtain as many sightings and readings as possible right from the start of the post-natal dispersal. Mauve-pink rings were used on Cormorant and yellow on Great Black-headed Gull; both ring types are engraved with a combination of black letters. All birds were also fitted with metal rings (Moscow or Bologna). According to existing recoveries, it is most likely that the majority of the Cormorants will migrate to the Middle East and east Mediterranean coasts, possibly as far west as Italy and Tunisia. Please report any rings you may observe / read to Nicola Baccetti (INFS, via Ca Fornacetta 9, I-40064 Ozzano Emilia BO, Italy; e-mail: infszumi@iperbole.bologna.it).

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Why has Sardinian Warbler *Sylvia melanocephala* invaded Cyprus?

VIC COZENS, PETER STEWART AND DEREK POMEROY

Seventeen species of *Sylvia* occur in the Western Palearctic, of which 11 are regular on Cyprus and one other, Desert Warbler *Sylvia nana*, is a vagrant (Flint & Stewart 1992). However, only three species breed: the endemic Cyprus Warbler *Sylvia melanothorax*, Spectacled *S. conspicillata*, and, only recently, Sardinian Warbler *S. melanocephala* (Snow & Perrins 1998). So why has Sardinian Warbler remained to breed, while nine others occur only on passage? This is strange as some, such as Orphean Warbler *S. hortensis* and Lesser Whitethroat *S. curruca*, are very common migrants, and breed in mainland countries adjacent to Cyprus, such as Turkey.

In fact, a number of *Sylvia* warblers have increased their ranges this century, including eight of the 11 species in Table 2. The exceptions are Cyprus and Rüppell's Warblers *S. rueppelli* and Whitethroat *S. communis* which have undergone range contractions, usually ascribed to habitat loss (Cramp 1992, Snow & Perrins 1998). Several of these extensions have been northward, suggesting favourable climatic changes. The spread of Sardinian Warbler has been more dramatic than most species, but again principally northward.

It has been suggested that Sardinian Warbler's arrival and expansion as a breeding species, on Cyprus, may be negatively affecting the endemic Cyprus Warbler (Pomeroy & Walsh 2000). If this is confirmed, a parallel within the genus *Sylvia* may exist: on Menorca, Dartford Warbler *S. undata* appears to have displaced Mamora's Warbler *S. sarda*. Elsewhere, as far as is known, the expansion of one *Sylvia* species has not negatively impacted on any others.

In passing, we note that Sardinian Warbler is not the only recent invasive species on Cyprus. Greenfinch *Carduelis chloris* arrived several decades ago and has since spread rapidly throughout the island, and Collared Dove *Streptopelia decaocto* and Cetti's Warbler *Cettia cetti* have greatly increased their ranges in the past 20–30 years (Flint & Stewart 1992). This is suggestive of a pattern, perhaps of habitat change; but these taxa do not appear to be threatening any other species, certainly not either of the endemics.

SOME BIOMETRICS

One apparent advantage that male Sardinian Warbler has is that it is heavier—and in that sense larger—than Cyprus Warbler, but all but two of the other nine Cypriot *Sylvia* are heavier than both species (sometimes significantly so), the exceptions being Spectacled and Subalpine Warblers *S. cantillans*. The weight differences between Cyprus and Sardinian Warblers are most marked in the all-important breeding season (Fig. 1, Table 1), but are also observable at other times of year ($t = 3.386$, $P < 0.01$), when males of both species, averaging 11.2 and 11.9, are heavier.

Curiously, while female Sardinian is heavier than female Cyprus Warbler, in the non-breeding season, taken as July–March ($P < 0.001$), there is no such difference in their breeding season weights ($P > 0.1$). While female Cyprus Warbler is much heavier than the male in

the breeding season (see Table 1), this difference is not found at other times of year ($P > 0.1$). Finally, in Sardinian Warbler, females are again significantly heavier in the breeding season ($P < 0.01$), whereas among non-breeding birds, females are heavier than males in January–March ($P < 0.05$) but not in July–December ($P > 0.1$).

Among many organisms, including most mammals, heavier individuals are much more likely to win contests than lighter rivals. Perhaps Sardinian Warbler would have an edge over the lighter Cyprus Warbler in interspecific contests. However, as yet, no such contest has been witnessed. There are also very few data on reproductive outputs of these species. Their clutch sizes are similar (Sardinian, 3.9, Cyprus Warbler 4.0: Cramp 1992), but it is unknown how many broods either species has on Cyprus, or how successful they are (Snow & Perrins 1998).

Wing lengths in Cyprus Warbler exceed those for Sardinian: the differences are small but highly significant in a statistical sense (as seen in Fig. 2 and Table 1 for breeding birds) and these differences are also observable in the non-breeding season, with males of both species always having longer wings than females. These differing proportions—long, slim Cyprus Warblers versus short, fat Sardinian

Table 1. Key statistics[a] for Cyprus *Sylvia melanothorax* and Sardinian Warblers *S. melanocephala in* the breeding season, taken to be April–June (although some breed a little earlier (Flint & Stewart 1992, pers. obs.). The complete data set, from which those in this table were taken, was for various months in the years from 1980–1985 (PS) and March to May in 1995, 1997 and 1998 (VC).

	Males			Females		
	Cyprus		Sardinian	Cyprus		Sardinian
Mean weight (g)	10.6	***	11.4	11.9		11.9
Mean wing-length (mm)	59.1	***	57.8	58.4	**	57.2
Mean[b] sample size	21		82	21		59

Notes. a: stars separate pairs of means for which *** = $P < 0.001$ and ** = $P < 0.01$ (two-tailed t-tests). b: the sample sizes vary slightly between the data sets for weights and lengths because a few individuals lacked data for both.

Table 2. The 11 regularly occurring *Sylvia* warblers on Cyprus, grouped according to how the mean weights for males compare to those of females. Data from Cramp (1992), except for Cyprus *S. melanothorax* and Sardinian Warblers *S. melanocephala*, and for these species, year-round means were taken. Trinomials are presented for non-nominate races of polytypic species. Sample sizes varied, but in no case were less than ten for each sex, except for Spectacled Warbler *S. conspicillata*, where Cramp only gives data for four males and one female.

Males > 5% lighter	Cyprus *S. melanothorax*
	Barred *S.nisoria*
Males 3–5% lighter	Sardinian *S. melanocephala*
	Lesser Whitethroat *S. curruca*
Both sexes similar	Subalpine *S. cantillans albistriata*
[differences <3%]	Rüppell's *S. rueppelli*
	Orphean *S. hortensis crassirostris*
	Whitethroat *S. communis*
	Blackcap *S. atricapilla*
Males 3–5% heavier	Garden *S. borin*
Males >5% heavier	(Spectacled) *S. conspicillata*

Figure 1. Weight class frequency distribution curves for males during breeding periods.

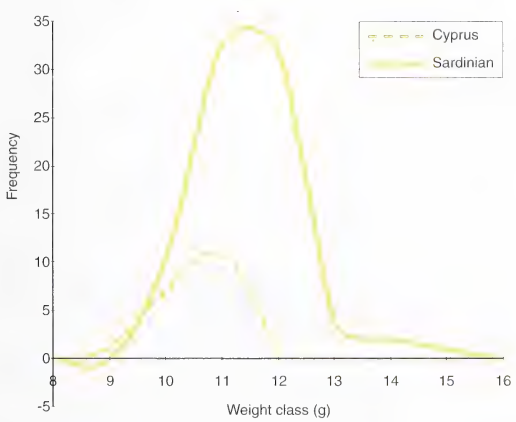
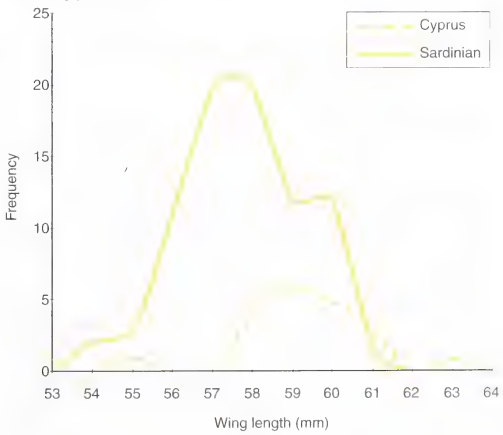


Figure 2. Wing length distribution curves for males during breeding periods.



Warblers—could suggest the latter is less migratory. Comparable differences in shape and migratory pattern occur in Iberian Blackcaps *S. atricapilla* (Telleria & Carbonell 1999). However, there are thought to be migratory and sedentary populations in both Cyprus and Sardinian Warblers, yet the proportions of migrants and their mean migratory distances, are unknown (P. Flint pers. comm.). It is possible that those Sardinian Warblers that breed on Cyprus are also non-migratory, as is the case with the species' populations on other Mediterranean islands (Cramp 1992). Further analyses of more detailed data may help resolve these questions, along the lines of recent studies by Copete *et al.* (1999) for Reed Bunting *Emberiza schoeniclus*, which also has both migratory and sedentary populations.

SIZES OF MALE AND FEMALE *SYLVIA* WARBLERS

In both of these species, the females are usually heavier than the males. Although not apparently relevant to the 'invasion' of Cyprus, it is unusual in birds, other than raptors and a few others, for females to be larger than males; so for comparison, the situation for all of the 11 Cypriot species is presented in Table 2.

Although the differences between the weights of the species with heavier males are not large, even in the very large Barred Warbler *Sylvia nisoria*, mean weights are 23.7 for males and 26.4 g for females, they are significant in the case of both Cyprus and Sardinian Warblers, at least seasonally (see above).

In contrast to these varying patterns for weights, mean wing lengths are consistently longer in males than females for all 11 species; this in itself is significant (sign test, $P = 0.01$). Ringing data also suggest that for all 11 of these species, numbers of males caught are always higher than for females: the ratios for Cyprus and Sardinian Warblers, males to females, are 69 : 45 and 137 : 112. These figures mask seasonal differences; in the breeding season, equal numbers of each sex of Cyprus Warbler were caught (Table 1), whereas the opposite was true for Sardinian Warbler, where non-breeding ringing totals contained an approximately equal sex ratio.

CONCLUSIONS

There are a number of unanswered questions arising from these data. In summary:

- Why has Sardinian Warbler only recently started to breed on Cyprus, while eight other *Sylvia* species migrate regularly across Cyprus without remaining to nest—especially as several of these are expanding their ranges elsewhere?
- What are the underlying causes—climatic change, changes in land use by man, others?
- Is the expansion of Sardinian Warbler in some way at the 'cost' of Cyprus Warbler, and if so, does the fact that Sardinian Warbler is heavier than Cyprus Warblers provide an advantage?
- How do the two species differ in shape (as they must, having opposite trends in wing lengths and weights), and is this significant?
- Why, for these two (and three other *Sylvia* species), are the females heavier than the males?
- Are males commoner than females in all of these species; or is this an artefact of mist-netting, or of males migrating earlier, or some other factor?

Cyprus Warbler is a SPEC 4 (Species of European Conservation Concern) (Tucker & Heath 1994), despite being relatively abundant at present. It is clearly time that it received more attention, for its scientific interest as well as its future prospects in the face of the spread of Sardinian Warbler.

ACKNOWLEDGEMENTS

We are grateful to Polycarp Mwima for data analyses, and to Peter Flint and Peter Lack for helpful comments on a draft of this article.

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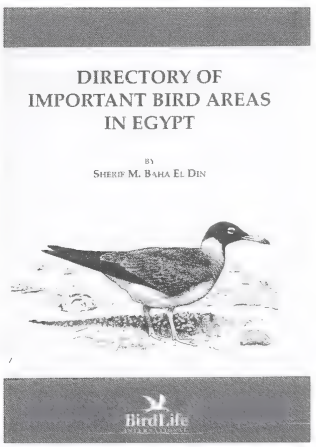

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Jezreel Valley, Israel—more than just raptors

HADORAM SHIRIHAI AND JAMES P. SMITH

The Jezreel Valley spans the northern third of Israel from the Carmel mountains to the Jordan Valley at Bet Shean. It is an immensely fertile region, being consequently heavily cultivated. The warm air thermals rising off the valley floor aid the migration of large soaring birds and it is here that the systematic counts of the annual international raptor migration survey are concentrated. After some political unrest in the late 1980s, the famous Kfar Qassem survey was relocated north to the Jezreel Valley and by the early 1990s had become a well-organised cross-country survey of the tens of thousands of pelicans, storks and raptors that pass through northern Israel during the autumn.

Not only is the Jezreel Valley an exceptional place to observe raptor migration, but it holds the largest wintering concentration of White-headed Duck *Oxyura leucocephala* in Israel along with impressive, albeit fluctuating, numbers of Marbled Teal *Marmaronetta angustirostris*, both species being found at Tishlovit Reservoir.

It is true that you will require exceptional good fortune to find all the species mentioned within a day, but it can be done by timing your visit for late September or early October. You may find Red-footed Falcons *Falco vespertinus* and Lesser Kestrels *Falco naumanni* hunting over the fields surrounding the reservoir at this season.

Tishlovit Reservoir, the Jezreel Valley and raptor watchpoint at Ginnegar

Accessing Tishlovit Reservoir is not easy and the area is best approached on Route 73 between Haifa and Afula. The reservoir is actually situated north-west of Afula, but must be accessed from the dirt track heading due south from kibbutz Ginnegar. Once on the dirt track, drive due south before crossing a bridge over a drainage canal after one km. Continue straight ahead over a gentle rise in the fields for some two km. You then reach a crossroads with a white stone dirt track, where you must turn right. Drive this track for another one km, before looking for a factory on your right. At the factory, turn left on a dirt track. In the distance you will notice the raised embankment of Tishlovit Reservoir and after a further 0.5 km you reach the fence of the reservoir. It is impossible to view the water from here and you must continue to drive, turning right at the fence to the main gates of the reservoir. Park here, walking through the gate if it's open. If the gates are closed, climb through the nearest gap in the fence. Walk to the top of the embankment and view the waterbirds from there. In some years one of the twin reservoirs may be dry exposing muddy pools, which are excellent for shorebirds and not infrequently, Ruddy Shelduck *Tadorna ferruginea*.

Please note that Tishlovit Reservoir is private property, but birders are generally tolerated. Remember to be courteous to staff if you are accosted, and ensure that access to the fabulous birding here is always open.

Walking around the perimeter of the reservoir can be productive, as some species will be hidden under the banks. Vast numbers of wildfowl are usually present and a telescope is essential for identifying most of them. Some high counts have been made from here with up 600 Black-necked Grebe *Podiceps*

nigricollis, 5000 White Pelican *Pelecanus onocrotalus*, 70 Marbled Teal, 400 White-headed Duck and 40 Ferruginous Duck *Aythya nyroca*. Small numbers of Red-crested Pochard *Netta rufina* occur and even Scaup *Aythya marila* has been recorded.

Tishlovit Reservoir also offers an excellent elevated vantage point for observing raptor migration and in late September up to 20 different species can be seen in a single day, including large numbers of Short-toed Eagle *Circaetus gallicus*, Honey Buzzard *Pernis apivorus*, Levant Sparrowhawk *Accipiter brevipes*, Lesser Spotted Eagle *Aquila pomarina* and Red-footed Falcon. Scarcer raptors could include Steppe *Aquila nipalensis* and Spotted Eagles *A. clanga*, Booted Eagle *Hieraaetus pennatus* and Eleonora's Falcon *Falco eleonorae*. Most raptors pass over this area between 08.00 hours and noon, but late afternoon can also be productive, when many of the birds are lower. The grass-covered embankments are favoured hunting grounds for all four species of harrier *Circus* spp. A large, isolated *Eucalyptus* tree, one km due south of kibbutz Ginnegar has served as a migration survey station for many years and here you may be able to sit with one of the volunteer counters. He or she will inform you of where most raptors have been passing recently, and be able to provide information from other watchpoints.

Be sure not to leave this area of the Jezreel Valley without checking some of the many fields and smaller reservoirs for migrants. Your efforts, in autumn, could be rewarded with Quail *Cortunix cortunix*, Little Crake *Porzana parva*, Collared Pratincole *Glareola pratincola*, Black-winged Pratincole *G. nordmanii*, Gull-billed Tern *Sterna nilotica*, marsh terns *Chlidonias* spp., Tawny Pipit *Anthus campestris*, various wheatears *Oenanthe* spp., Savi's Warbler *Locustella luscinoides*, Great Reed Warbler *Acrocephalus arundinaceus*, Lesser Grey Shrike *Lanius minor*, Cretzchmar's Bunting *Emberiza caesia* and Ortolan Bunting *E. hortulana*. It is also worth checking the flocks of Spur-winged Plover *Vanellus spinosus* carefully, small parties of Sociable Plover *Vanellus gregaria* have been found in these fields. More intriguingly, the occasional Painted Snipe *Rostratula benghalensis* has been noted in the drains and ditches between the fields, with the most recent record, a spectacular female, at nearby Kefar Baruk reservoir in September 1999.

Plate 1. Cretzschmar's Bunting *Emeriza caesia*, Israel. (*Paul Doherty*)

This part of the Jezreel Valley can easily be reached from Kefar Ruppin, which is our recommendation for lodging, in less than one hour. At Kefar Ruppin, the best place to stay is the tourist lodge (telephone: +972-6-6068396; mobile telephone: 050-395856; fax: +972-6-648-0612; e-mail: dglasner@kfar-ruppin.org.il). They are also willing to make arrangements for you to stay at Neve Eitan if your party is too large for their site.

Hadoram Shirihai, P. O. Box 4168, Eilat 88102, Israel.

James P. Smith, Kibbutz Lotan, Doar Na Chevel, Eilot 888555, Israel.

For more information on birdwatching sites in northern Israel, see Shirihai, H., Smith, J. P., Kirwan, G. M. and Alon, D. (2000) A guide to the birding hotspots of northern Israel. *Israel Ornithological Center, Tel Aviv.*

PROFILE

Dr Omar Al-Sagheir

When the 1993 OSME expedition to southern Yemen arrived in Sana'a, it was joined by a young Yemeni agronomist at the time employed by the Ministry of Agriculture to study the sustainable use of natural resources. This was Omar's first introduction to bird and habitat conservation work, and it was OSME's first acquaintance with Omar!

From this happy start, a close and productive relationship developed. Omar became the de facto Yemen 'anchor man' for future visits and conservation projects, and worked particularly closely with Richard Porter over the next five years to plan and publicise conservation proposals for the various threatened areas of Yemen; in particular Aden marshes, the island of Socotra and, Jebel Bura and Hawf in the Al-Mahra region. Of equal importance, he has been crucial to a successful education project in Yemen's schools, visiting, lecturing and conducting field days to introduce students to Yemen's rich natural heritage and the urgent need to protect it.

Omar graduated with a degree in animal production from Al-Mansoura University and undertook a doctorate in animal nutrition at London University. He returned to Yemen and was appointed Head of Livestock in the Agriculture Research Authority of the Ministry of Agriculture, developing policies for the sustainable use of rangelands.

Since 1993, he has been increasingly involved in wildlife conservation planning in Yemen, working with OSME, BirdLife International, UNDP and the Darwin Initiative. He was recently appointed BirdLife's full-time representative in Yemen, and is particularly well qualified to liaise between the various international conservation organisations and the Yemen government, who know and respect him. Successes are emerging: the establishment of Socotra as a world biosphere project, the protection of the internationally important Aden marshes, and the creation of protected status for a number of important sites in Yemen are hopefully the first signals of a new era. Enthusiasm and understanding about conservation is increasing in schools, and the government is sympathetic.

Omar is a Vice-President of OSME, President of the Yemen Ornithological Society, and a member of the IUCN working group on Houbara Bustard *Chlamydotis undulata*. Following the recent selection of Adnan Budieri as Head of BirdLife International's Middle East office, the appointment of Omar to lead BirdLife's projects in Yemen is further welcome evidence that responsibility for the future of conservation is now rightly passing to well-qualified and dedicated Arab scientists.

Derek Harvey

Turkey Bird Report 1992–1996

EDITED BY G. M. KIRWAN AND R. P. MARTINS

INTRODUCTION

THIS, THE EIGHTH TURKEY BIRD REPORT, documents significant records during 1992 to 1996. Judging from records received, package tour-centred birding has further expanded and a small number of new areas in the East have been visited. The montane South-East has not received attention since the early 1980s. Unfortunately, travel in this area presents substantial risks. A notable initiative during recent years was the first comprehensive attempt to assess the status of waterbirds throughout the Turkish Black Sea coast in winter (Welch & Welch 1998). Hopefully such projects will become less necessary as the tiny but developing Turkish birding community, centred around Istanbul and Ankara, continues to visit those parts of the country that are poorly explored.

During the period covered three significant publications updating Turkish ornithology were published. Roselaar (1995) assessed extensive series' of specimens of Turkish passerines held at the major European museums and unpublished reports held by the Dutch Birding Travel Reports Service not covered by past Turkey Bird Reports, presenting a summary of the distribution, status and taxonomic position of Turkish passerines. Kasparek & Bilgin (1996) is the first widely available updated systematic list, published in Turkish, since Kasparyan (1956). In an OSME Supplement to *Sandgrouse* Kirwan *et al.* (1999) reviewed both published and unpublished claims of rarities and the identity of selected taxonomically problematical Turkish populations in the light of the current species concepts debate, and the seasonal status of all Turkish birds. Such records typically relate to either modern claims or (sometimes apocryphal) historical records included in previous Turkey Bird Reports. The veracity and provenance of some of these has always been unclear. Following this, 41 claimed species were deemed not proven to have occurred in Turkey.

Following these advances, policy for record inclusion has been adjusted. Departing from that adopted in previous reports, only species considered 'rare' in Turkey, or for which significant new status and / or distributional information are available are presented.

The next report will cover the period 1997–2001 and records are now requested. Photographs for publication would be most welcome. Contributors may either send photographs with records submitted or list those species for which they are available so they may be requested at a later date. Material should be sent to G. M. Kirwan and R. P. Martins, Turkey Bird Report, OSME, c/o The Lodge, Sandy, Bedfordshire SG19 2DL, U. K., or by e-mail to: turkishbirdreport@osme.org.

Black Sea
Mediterranean
Aegean
SU
IR
IRQ
SYR
BG
GR
Sea of Marmara
Scale Km.

Turkey

Red-throated Diver *Gavia stellata*
Previously considered a very rare winter visitor to Black Sea, Marmara, Aegean and Mediterranean coasts. Recent observations suggest it may be regular but uncommon in winter along Black Sea coast (Hales 1996, Welch & Welch 1998). Has occurred inland in East.
Black Sea Coastlands: Kızılırmak Delta: 1 Feb 92 (LJD, MK); 26 Dec 93 (SB, SD, MYa); 14 Jan 96 (DHKD 1996). Aralık, near Eynesil 11 Feb 95 (S & SB, SD). 2, Abana 9 May 95. 7, Çatalzeytin 9 May 95. 3, Sinop 10 May 95 (Hales 1996).
Thrace: 2, Terkos Gölü 23 Jan 93 (DHKD 1993).
Western Anatolia: Gediz Delta: 12 Feb 95; 2, 17 Mar 95; 9 Mar 96 (Eken 1997b).

Slavonian Grebe *Podiceps auritus*
Vagrant or very scarce winter visitor. No records in 1974–90.
Black Sea Coastlands: Kızılırmak Delta: 20 Apr 92 (Hustings & van Dijk 1994, Kirwan 1995); 6 Mar 93 (Kirwan 1995).
Thrace: Kurna, Istanbul 27 Jan 91 (KAB).
Western Anatolia: Kocaçay Delta 9 May 73 (Ertan 1996) has not previously been mentioned in these reports.

Cory's Shearwater *Calonectris diomedea*
Fairly widespread and locally not uncommon summer visitor to Mediterranean and Aegean coasts. Occasionally recorded from Sea of Marmara and from Black Sea coast. Probably remains under-recorded; perhaps breeds but conclusive evidence lacking.
Western Anatolia: 2, off north coast of Bodrum peninsula 14 Sep 92 (NKH, D & SR). 50, Küçük Menderes Delta 18 Jun 93. 35–40, Bodrum 26 Jun 93 (JF). Datça Peninsula 1 Sep 95 (AA). 2, Gediz Delta 24 Mar 95 (GE).
Southern Coastlands: Göksu Delta: 18 May 95 (*Birdquest Newsletter* 24: 18); 25 Mar 96 (AR); 3, 30 May 96 (DM, SS). Between Kemer and Uçadalar Adaları 27 Jun 92 (GMa, NW). 10, offshore east of Antalya 22 Jun 90 (J. Wallander *et al.*) has not previously been mentioned in these reports.

Storm Petrel *Hydrobates pelagicus*
Status uncertain; perhaps only a vagrant.
Western Anatolia: Karaada: 6, 15 Mar 72; 7, 17 Mar 92 (Eken 1997a); the former record has not previously been mentioned in these reports and constitutes the first record in Turkey, predating that in 1988 (Haaß 1990, Kirwan & Martins 1994).

Gannet *Sula bassana*
Scarce and irregular visitor offshore along Mediterranean coast in winter and spring. The species is apparently severely under-recorded.
Southern Coastlands: Göksu Delta: immature, 18 Apr 90 (J. Lundberg, F. Nordwall) has not previously been mentioned in these reports; 4 immatures, 25 Mar 96 (AR). 2, Yumurtalık lagoon 10 Jan 96 (G & HW). Adult, off Tuzla Gölü 7 Mar 90 (Kivit *et al.* 1994) has not previously been mentioned in these reports.

Whooper Swan *Cygnus cygnus*
Uncommon but apparently increasing winter visitor to western two-thirds of Turkey; recently recorded in East.
Black Sea Coastlands: Kızılırmak Delta: 2, 2 Feb 92 DHKD 1992); 7, 7 Apr 92; 2, 30 Apr 92 (Hustings & van Dijk 1994); 19, 30 Jan 93 (DHKD 1993); 27 Mar 93 (G & HW); 30 May 93 (SB, GMK); 11, 29 Jan 95 (SB); 10 Dec 95 (SD). Sarıkum Gölü: 7, 18 Dec 95 (GM); 3, 28 Jan 96 (DHKD 1996).
Thrace: Meriç Delta: 37, 24 Jan 93 (DHKD 1993); 34, 13 Jan 94 (GM); 150, 17 Jan 96 (DHKD 1996); 214, 22 Feb 96 (GE, EÖ). 24, Iğneada 12 Jan 94 (GM). 3, Büyükçekmece 23 Jan 93 (DHKD 1993).
Western Anatolia: Bafa Gölü 10 Jan 92 (HL). Marmara Gölü: 14, 30 Jan 92 (DHKD 1992); 32, 27 Jan 93 (DHKD 1993); 12, 17 Dec 94 (GE, BÖ). Büyük Menderes Delta: 7, 26 Jan 92 (DHKD 1992); 1 Feb 93 (DHKD 1993). Manyas Gölü: 11, 31 Jan 92 (DHKD 1992); 9, 6 Feb 93 (DHKD 1993); 23, 18 Jan 96 (DHKD 1996). Gediz Delta 2 Apr 95 (GE).

Southern Coastlands: Göksu Delta: 45, 31 Jan 92 (DHKD 1992); 67, 24 Jan 93 (DHKD 1993); 22 Mar 93 (JvdW *et al.*); 37, 23 Jan 95 (V & IvdB, HG); 29 Apr 95 (Balch & Maybank 1996); 19 Mar 96 (AR). Burdur Gölü: 9, 26 Jan 92 (DHKD 1992); 29, 25 Feb 95 (BG). 18, Ağyatan Gölü 24 Jan 92 (DHKD 1992). 4, Akyatan Gölü 23 Jan 93 (DHKD 1993). Karataş Gölü 27 Jan 92 (DHKD 1992).
Central Plateau: Kulu Gölü: 158, 8 Dec 93 (GM); 23 Apr 95 (KAB). Hirfanlı Barajı: 26, 20 Jan 92 (DHKD 1992); 43, 7 Dec 93; 33, 21 Jan 96 (DHKD 1996).
East: Kabaklı Barajı, Diyarbakır Feb 93 (Biricik 1996).

Bewick's Swan *Cygnus columbianus*
First recorded in 1983 and now apparently regular winter visitor, usually in very small numbers, in the western two-thirds of Turkey. Recently recorded in East. The second to tenth records in Turkey.
Black Sea Coastlands: Kızılırmak Delta 26 Dec 93 (SB, SD, MYa).
Western Anatolia: 18, Manyas Gölü 6 Feb 93 (DHKD 1993, Kirwan 1995).
Southern Coastlands: Burdur Gölü: 5, 26 Jan 92 (DHKD 1992, Kirwan 1995); 51, 28 Jan 93 (DHKD 1993, Kirwan 1995); 24 Dec 94 (KAB, AIT). 17, Eğirdir Gölü 26 Jan 96 (DHKD 1996).
Central Plateau: 5, Süleymanhacı Gölü 22 Jan 92 (DHKD 1992, Kirwan 1995). Kulu Gölü 16 Apr 93 (Kirwan 1995).
East: 3, Kabaklı Barajı, Diyarbakır Mar 93 (Biricik 1996).

Bean Goose *Anser fabalis*
Vagrant. None of the records have been racially assigned and it is unclear which form/s occur.
Western Anatolia: 61, Marmara Gölü 30 Jan 92. 2, Büyük Menderes Delta 26 Jan 92 (DHKD 1992).
Southern Coastlands: Göksu Delta 24 Jan 93 (DHKD 1993).
Central Plateau: Seyfe Gölü 20 Jan 92 (DHKD 1992).

Lesser White-fronted Goose *Anser erythropus*
Vagrant.
Thrace: Büyükçekmece 23 Jan 93 (DHKD 1993, Kirwan 1995).
Southern Coastlands: Göksu Delta 24 Jan 93 (DHKD 1993).

Red-breasted Goose *Branta ruficollis*
Rare winter visitor to western two-thirds of Turkey.
Thrace: Büyükçekmece: 14 Dec 91; 6, 11 Jan 92; 2, 23 Feb 94 (KAB); 75, 11 Feb 96 (BG). 2, between Küplü and Ipsala Jan 96 (Ayaş & Kiziroğlu in prep.).
Southern Coastlands: 3, Göksu Delta 31 Dec 92 (DHKD 1992).

Marbled Teal *Marmaronetta angustirostris*
Local breeder in moderate numbers in lowland wetlands of Southern Coastlands, and in small numbers, but perhaps declining, in some wetlands on Central Plateau and in East. Mainly a summer visitor but has overwintered. Status uncertain in peripheral localities.
Southern Coastlands: Göksu Delta: 15, 12–13 May 87 (T. Andersen *et al.*) has not previously been mentioned in these reports; 31 Jan 92 (DHKD 1992); 24, 4 May 92 (BP *et al.*); 5, 9 Jun 92 (PCa, BPl, SW); 4, 24 Jan 93 (DHKD 1993); 63, 22 Mar 93 (JvdW *et al.*); 2, 25 Apr 93 (PC *et al.*); 6, 16 Apr 93 (R & CS); 20, 13 May 93 (JG, CSk); 15, 23–24 May 93 (TA); 18, 1 Jun 93 (JWB); 25+, 7 Jun 93 (PB *et al.*); 15, 2 Jul 93 (MCo, AH, SdP); 8, 19 May 94 (LB); 40, 5 Jun 94 (HH); c. 30, 11 Jun 94 (ARo *et al.*); 7, 15 Aug 94 (KAB); 10, 21 Sep 94 (PY); 9, 11–12 Apr 95; 6, 29 Apr 95 (JM); 30 pairs, late May 95 (IG *et al.*); 105, 10 Jul–6 Aug 95 (Green 1996); 2, 19 Mar 96; pair, 6 Apr 96 (LM, LV); 4, 9 Apr 96 (J-PP); 2–21, 14–26 Apr 96 (AR); 22, 23 Apr 96 (AW); 30–40, 11 May 96 (GB); 5, 19 May 96 (SBr, PG); 4, 30 May 96 (DM, SS); 13, 7–8 Aug 96 (RA *et al.*). Çukurova: recorded between 15 Mar and 14 May 90 with max. 106, 10 Apr 90 and still 30, mid-May 90 (Kivit *et al.* 1994), a series of records that has not previously been mentioned in these reports; 28 May 93 (TA). Tuzla Gölü: 26 Mar 93 (JvdW *et al.*); 10 Jun 94 (ARo *et al.*); 2 Mar 95 (GE, MY); 3, 1 Jun 96 (DM, SS). 3 including pair, Karataş 2 May 92 (DG, JDRV). 15, Yemişli marsh, Çukurova 22 Apr 93 (R & CS). 5, Tuzla meanders 18 May 89 (van den Berk *et al.* 1993) has not previously been mentioned in these reports.

Central Plateau: Sultan marshes: 8–12, 17 Jun 89 (M. Jonassohn, L. Råberg *et al.*) has not previously been mentioned in these reports; 2, 9 May 92 (BP *et al.*); 4, 19 Aug 92 (GM); 8, 4 Jun 94 (DGv); 2, 14 May 96 (IG *et al.*). 10, Ereğli marshes: 3–5, 27 May 93 (UK *et al.*); 16 Jun 93 (GM); 4, 31 May 94 (HH); 23 Jul 94 (HP, RvdV); 19 Apr 96 (J-PP). 9, Kulu Gölü 2 Oct 94 (PY). 2, Seyfe Gölü 20 May 93 (RPM).
East: South Van marshes: 15–16 Jun 90 (J. Wallander *et al.*) has not previously been mentioned in these reports; 4, 19 May 93 (MD, GMK); 7 Jun 94 (ARo *et al.*); 23 Jun 94 (JFr, HS); 10 Jul 95 (MY).

Scaup *Aythya marila*
Uncommon winter visitor, principally to coasts, in western two-thirds of the country. Rarely inland, but recently recorded in East in late spring.
Black Sea Coastlands: Kızılırmak Delta: 61 between 15 Mar and 7 Apr 92 with max. of 38 on 28 Mar (Hustings & van Dijk 1994); 4, 30 Jan 93 (DHKD 1993); 22, 20 Feb 93 (SB, SD). 6, Sarıkum Gölü 16 Apr 95 (SB, SD).
Thrace: Büyükçekmece: 2, 23 Jan 93 (DHKD 1993); 28 Oct 95 (BG).
Western Anatolia: Bafa Gölü 27 Jan 92 (DHKD 1992).
Southern Coastlands: c. 20, Göksu Delta 12 Apr 90 (J. Lundberg, F. Nordwall) has not previously been mentioned in these reports.
East: 2 males, Göldüzü, Van Gölü 30 May 92 (GSa *et al.*).

Common Scoter *Melanitta nigra*
Very rare winter visitor along Black Sea coast. Occasional in Sea of Marmara and perhaps elsewhere.
Black Sea Coastlands: Kızılırmak Delta: 2 males, 18 Mar 92; pair, 4 Apr 92; 2, 20 Apr 92 (Hustings & van Dijk 1994); 3 females, 18 Oct 92 (SB, SD). Yeşilırmak Delta: 12, 29 Jan 95 (SD); 2, 9 May 95. 6, Eynesil, 11 Feb 95 (S & SB, SD).

Goldeneye *Bucephala clangula*
Uncommon winter visitor to wetlands and, more normally, coastal areas in the western two-thirds of the country. The pattern of occasional summer records in East is perhaps emerging as a trend. Only inland and summer records are presented.
Western Anatolia: Female, Bafa Gölü 18 Sep 82 (C. Husband) has not previously been mentioned in these reports.
Southern Coastlands: 18, Eğridir Gölü 25 Jan 92 (DHKD 1992). 2, Burdur Gölü 28 Jan 93 (DHKD 1993). 3, Çukurova 2 Mar 90 (Kivit *et al.* 1994) has not previously been mentioned in these reports.
Central Plateau: 11, Hirfanlı Barajı 7 Dec 93. Eften Gölü 4, 9 Mar 94; 25 Mar 96. 9, Kamilbey Gölü 9 Mar 94 (GM).
East: Bendimahi Delta: 2, 6 Jul 88 (N. K. Haaß) has not previously been mentioned in these reports; 12 May 92 (E & NM); 25 Jun 92 (MC); 21 Jul 92 (GM, LN); 2 Jun 93 (UK *et al.*). Erçek Gölü 20 May 93 (MD, GMK).

Smew *Mergus albellus*
Generally a local and scarce winter visitor to wetlands and coastal areas in the western two-thirds of the country. Very rarely occurs in considerable numbers.
Black Sea Coastlands: Female, Kızılırmak Delta: 10 Apr 92 (Hustings & van Dijk 1994).
Western Anatolia: Male and 2 females, Uluabat Gölü 26 May 95 (GM, MY).

Goosander *Mergus merganser*
Rare winter visitor in very small numbers to wetlands in the western two-thirds of Turkey . Has been recorded in spring and early summer in East but no evidence of breeding.
Black Sea Coastlands: Kızılırmak Delta: 2, 2 Feb 92 (DHKD 1992); 3, 22 Mar 92; female, 1 Apr 92; 2 females, 6 Apr 92; 2 males, 20 May 92 (Hustings & van Dijk 1994). Yedikır Barajı: 2, 19 Dec 95 (GM); 4, 10 Jan 96 (DHKD 1996).
Thrace: 2, Büyükçekmece 11 Feb 96 (BG).
East: Van Gölü 7 Jun 86 (R. Jürgens) has not previously been mentioned in these reports.

Plate 1. Black Vulture *Aegypius monachus*, Turkey. (*Akif Aykurt*)

Plate 2. Demoiselle Crane *Anthropoides virgo*, Bulanık, Turkey, 1992. (*Robin Chittenden*)

Plate 3. Armenian Gull *Larus armenicus*, Turkey, 1992. (*Robin Chittenden*)

Plate 4. Striated Scops Owl *Otus brucei*, Eilat, Israel. (*Robin Chittenden*)

Plate 5. Bimaculated Lark *Melanocorypha bimaculata*, Turkey, 1992. (*Robin Chittenden*)

Plate 6. Upcher's Warbler *Hippolais languida*, Turkey, 1992. (*Robin Chittenden*)

Crested Honey Buzzard *Pernis ptilorhyncus*
Vagrant, recent observations (Shirihai *et al.* in press) indicate perhaps more frequent in Western Palearctic than previously known. The first and second records in Turkey.
Black Sea Coastlands: Borçka: 27 Sep 79, the first Western Palearctic record (Laine 1996); adult male, 25 Sep 96 (*Birdquest Newsletter* 26: 23–25).

Red Kite *Milvus milvus*
Apparently a rare passage migrant and winter visitor throughout Turkey. Recorded in summer in north and east but no evidence of breeding. Confusion has often occurred with pale (especially immature) Black Kites *M. migrans* and undoubtedly many published records from Turkey are erroneous.
Black Sea Coastlands: Kızılırmak Delta: 22 recorded between 21 Apr and 31 May 92 with max. of 8 on 19 May (Hustings & van Dijk 1994). Borçka 17 Sep 93 (HL).
Thrace: Iğneada 4 May 94 (BB, NP).

White-tailed Eagle *Haliaeetus albicilla*
Until recently a local resident in small numbers in wetland areas in Black Sea Coastlands, Thrace, Western Anatolia, Southern Coastlands and probably Central Plateau and East. Now seriously endangered and exact status as a breeding species unclear. A few pairs persist in Western Anatolia, and perhaps in adjacent areas of Southern Coastlands and Central Plateau. More widespread across Turkey outside the breeding season, suggesting some immigration.
Black Sea Coastlands: Kızılırmak Delta: 21 Mar 92; 4, 10 May 92; adult and immature, 19 May 92; immature, 23 May 92 (Hustings & van Dijk 1994); 25 Oct 95 (SD). Sakarya Delta 1 Jun 95 (MY). Immature, Yeniçağa Gölü 19 May 92 (PCa, BPl, SW).
Thrace: Iğneada: 3, 12 Jan 94 (GM); 4 May 94 (BB, NP); adult, 10–11 Sep 96 (KAB). Enez Gölü 1 Jun 94 (GM).
Western Anatolia: Kocaçay Delta: abandoned eyrie found and one bird seen in area, Apr–Aug 93 (Ertan 1996); 2, 4 Oct 93; 2, 20 Jan 96 (DHKD 1996). Köyçeğiz Gölü: 2, 6 Jun 92 (KAB); adult, 21 Jun 92 (RH); adult, 11 Sep 92 (NKH, D & SR); adult, 3 Apr 93 (PA & WJB); immature, 11 Apr 95. Dalyan: 3–4 adults, 28 Jun 93 (JF); adult, 11 Apr 95 (RB). Bafa Gölü: adult, 14–15 Apr 88 (C. Husband) has not previously been mentioned in these reports; adult, 2 Jun 92 (GM); 2, 3 Feb 93 (DHKD 1993); juvenile, 4 May 93 (JG, CSk); adult, 7 Oct 96 (FJ); 22 Oct 96 (AF, SP). Immature, Manyas Gölü 28–30 May 96 (AB). 2, between Buçak and Heraklia 20 Apr 90 (N. K. Haaß) has not previously been mentioned in these reports.
Southern Coastlands: 3, Beyşehir Gölü 23 Jan 92 (DHKD 1992). 2, Işıklı Gölü 29 Jan 92 (DHKD 1992). Salda Gölü: 2, 25 Feb 94 (GS); adult, 13 Jan 95 (R & SU). Burdur Gölü 25 Feb 95 (BG). Göksu Delta 23 Jan 95 (V & IvdB, HG)).
Central Plateau: Sakarya Barajı: 29 Oct 95 (BG); 2, 9 Dec 95 (MF).

Levant Sparrowhawk *Accipter brevipes*
Status uncertain. Apparently a local summer visitor in very small numbers in north-west, north-east, Southern Coastlands, South-East, and perhaps also adjacent areas of the Central Plateau. Breeding recently proven in Southern Coastlands. Otherwise uncommon on passage across Turkey, except locally in considerable numbers in Bosphorus area and around Gulf of Iskenderun, and in moderate numbers, in spring, in eastern Black Sea Coastlands. Breeding distribution requires clarification.
Black Sea Coastlands: Female, Gelinkaya 20 Jun 94 (JFr, HS)
Western Anatolia: Bafa Gölü 1 Jun 95 (MVB, JWC). Karaburun Peninsula 10–11 May 96 (GE, EU).
East: Male, Munzur Milli Parkı 25 Jul 92 (GM, LN).

Rough-legged Buzzard *Buteo lagopus*
Rare winter visitor in very small numbers to Black Sea Coastlands, Thrace, Western Anatolia and Central Plateau.
Black Sea Coastlands: Kızılırmak Delta: 12 between 22 Mar and 25 Apr 92 with max. of 4 on 14 Apr (Hustings & van Dijk 1994); 30 Jan 93 (SB *et al.*); 16 Mar 96 (KAB *et al.*).
Thrace: Between Küplü and Ipsala Dec 95–Jan 96 (Ayaş & Kiziroğlu in prep.).

Bonelli's Eagle *Hieraaetus fasciatus*
Status uncertain. Apparently a rare and local resident in Western Anatolia, Southern Coastlands, South-East and adjacent areas of Central Plateau. Recently recorded in East. Past confusion between this species and other raptors, especially immature Honey Buzzard *Pernis apivorus*, has generated many possibly erroneous published records. Records excepting those from well-known site at Halfeti (South-East) are presented.
Black Sea Coastlands: Borçka: 18 Sep 93 (HL); 8 between 24 Sep and 5 Oct 94 (Mrlìk *et al.* 1995). Immature, between Alaçam and Kizlan 29 May 93 (SB, SD, GMK).
Thrace: Iğneada 4 May 94 (BB, NP).
Western Anatolia: Adult, near Yalıkavak, Bodrum 26 Jun 93 (JF). Alaçatı Adaları 29 Apr 95. Foça Adaları 3 Sep 96. Confirmed to breed on island off Bodrum Peninsula (Eken 1997a). Between Kuşadası and Söke Aug 92. Immature, Datça Aug 94. Between Hızırşah and Datça: immature, 12 Sep 96; 21 Sep 96 (Vaasen in prep.).
Southern Coastlands: Göksu Can.: 12 Apr 93; pair, 10 May 93; 12 Jul 93; immature, 22 Aug 93; immature, 5 Sep 93; 3, 25 Oct 93. Pozantı: immature, 24 May 93; pair, 26 Jun 93. North of Silifke 12 Jun 93. Imamlı: immature, 21 Jul 93; pair, 6 Aug 93. Pair, Kesiltürkmenli 17 Oct 93 (Vaassen in prep.). Adult, 4 km south of Kemer 24 Jun 92 (RH). Between Beyşehir and Akseki 28 May 96 (SBr, PG). Uzuncaburç 10 Jun 90 (J. Wallander *et al.*) has not previously been mentioned in these reports.
Central Plateau: Immature, Akşehir Gölü 23 Apr 92 (CGB, GMK).
South-East: Immature, Işıklıı 23 May 94 (LB).
East: Between Malatya and Erzurum 29 Jul 94 (HP, RvdV).

Barbary Falcon *Falco pelegrinoides*
Vagrant. The first record in Turkey.
South-East: Birecik: 25 Jun 94 (JFr, HS).

Caucasian Black Grouse *Tetrao mlokosiewiczi*
A locally scarce or not uncommon resident at subalpine elevations in the Pontic mountains, eastern Black Sea Coastlands. Apparently most common on, and perhaps primarily restricted to the northern slopes of the north ridge (which receives most precipitation). Distribution is centred on slopes with substantial dwarf *Rhododendron* scrub cover below alpine herb zone (Atkinson *et al.* 1995). Western limits of range unclear although recently slightly extended (Atkinson *et al.* 1995). The Turkish population is impacted, and perhaps threatened, by habitat dereliction and cover reduction through grazing. There is insufficient historical information to assess whether the population is stable.
Black Sea Coastlands: Sivrikaya: regularly recorded throughout the period with max. 60 males, May 93. Up to 38 males, Ablaryas May 93. Up to 9 males, Yaylaönü May 93. Up to 5 males, Pladimezraasi May 93. Up to 23 males, Kaçkar south May 93. Up to 3 males, Kaçkar north Jun 93 (Atkinson *et al.* 1995). Male, Karagöl valley, Kaçkar 28 May 96 (AW).

Spotted Crake *Porzana porzana*
Status uncertain. Rarely but widely recorded on passage throughout; probably more common than records suggest. May breed very locally in small numbers.
Black Sea Coastlands: Kızılırmak Delta: 33 between 14 Apr and 10 Jun 92, and considered possibly breeding (Hustings & van Dijk 1994); 26 Mar 93 (G & HW); 10, 23 Sep 95; 3, 24 Sep 95; 25 Sep 95; 26 Sep 95 (CGB, DJB, GMK). 2, Yeşilırmak Delta 22 Sep 95 (CGB, DJB, GMK).
Thrace: Calling, near Yeniköy 20 Apr 96 (LM, LV).
Western Anatolia: Uluabat Gölü 15 Sep 95 (CGB, DJB, GMK). Kocaçay Delta 2 May 93 (Ertan 1996). Dalyan 26 Apr 96 (A & SD). Near Serçin 18 Apr 90 (N. K. Haaß) has not previously been mentioned in these reports.
Southern Coastlands: Göksu Delta: 11 Apr 90 (J. Lundberg, F. Nordwall) has not previously been mentioned in these reports; 16 Apr 93 (R & CS); 2, 21 Sep 94 (PY); 11 Apr 95 (JM); singing, 9 Apr 96 (J-PP); 15 Apr 96 (AR). Çukurova: 29 Mar 90; 30 Mar 90; 6 Apr 90 (Kivit *et al.* 1994) have not previously been mentioned in these reports; 19 Sep 94; 23 Sep 94; 3 Oct 94; 7 Oct 94; 2, 9 Oct 94; 11 Oct 94 (RT, JY).

Plate 7. Male Rüppell's Warbler *Sylvia rueppelli*, Lesbos, Greece, May 1997. (*Richard C. Hart*)

Plate 8. Male Ménétries's Warbler *Sylvia mystacea*, Birecik, Turkey, 1992. (*Richard C. Hart*)

Plate 9. Krüper's Nuthatch *Sitta krueperi*, Lesbos, Greece, May 1997. (*Richard C. Hart*)

Plate 10. Yellow-throated Sparrow *Petronia xanthocollis*, Birecik, Turkey, June 1992. (*Robin Chittenden*)

Plate 11. Cinereous Bunting *Emberiza cineracea*, Işıklı, Turkey, June 1992. (*Robin Chittenden*)

Plate 12. Grey-necked Bunting *Emberiza buchanani*, Van, Turkey, June 1992. (*Robin Chittenden*)

Central Plateau: 2, Hafik Gölü 1 Jun 93 (GM). Balıkdamı: 11, 11 Sep 94 (G & HW); 20, 18 Sep 95 (CGB, DJB, GMK). Sultan marshes 14 May 96 (IG *et al.*).
East: Saz Gölü, Doğubayazıt 25 May 93 (MD, GMK).

Little Crake *Porzana parva*
Status uncertain. Rarely but widely recorded on passage throughout, almost certainly more common than records suggest. Breeds locally in small numbers.
Black Sea Coastlands: Kızılırmak Delta: 32 between 30 Mar and 10 Jun 92, and considered possibly breeding (Hustings & van Dijk 1994). Kaz Gölü 14 Sep 94 (G & HW). Istanbul 8 Oct 96 (DHKD).
Thrace: Iğneada 16 Sep 92 (GMK *et al.*)
Western Anatolia: Uluabat Gölü: 21 Sep 92 (GMK *et al.*); 18 Mar 93. Kuçuk Menderes Delta 22 Mar 93. Gökgöl marsh 28 Mar 93. (G & HW). Iznik Gölü 24 Sep 92 (GMK *et al.*). Male, Dalyan 18–22 Apr 92 (IAG). Juvenile, Köyçeğiz Gölü 12 Sep 94 (JT). Gediz Delta 2 Apr 95 (GE). Female, Milet 17 Apr 88 (C. Husband) has not previously been mentioned in these reports. Kocaçay Delta 14 Apr 90 (Ertan 1996) has not previously been mentioned in these reports.
Southern Coastlands: Göksu Delta: male, 14 May 93 (GMK); 21 May 93 (PCa *et al.*); 2, 11 Apr 95; 12 Apr 95 (JM); female, 28 Mar 96; 3, 9 Apr 96 (J-PP); 1–4, 15–28 Apr 96 (AR). Çukurova: 71 recorded between 25 Mar and 15 May 90 (Kivit *et al.* 1994) has not previously been mentioned in these reports; 6–7, 27 Mar 93 (JvdW *et al.*); 5, 7 Apr 94; 2, 14 Apr 94 (C & CB); 2, 30 Sep 94; 4 Oct 94; 5 Oct 94; 7 Oct 94; 2, 9 Oct 94; 10 Oct 94; 3, 11 Oct 94; 3, 12 Oct 94 (RT, JY); 2, 8 Apr 96; 6, 9 Apr 96 (LM, LV); many, 20 Apr 96 (NS). River Karpuz, Kızılot 14 Apr 93 (R & CS).
Central Plateau: Moğan Gölü: 9, 24 Apr 93; 3, 2 Apr 95 (KAB). Uyuz Gölü: 5, 25 May 92 (SKK, GMK, UÖ); 6 Jun 96. 7, Kulu Gölü 27 Apr 92 (GMK). Female, Karapınar Ovası 21 Apr 95. Male, Ereğli marshes 23 Apr 95 (JM). 4, Balıkdamı 16 Apr 96. 42, Kozanlı Saz Gölü 19 Apr 96 (G & HW).
South-East: 39, Gâvur (Türkoğlu) Gölü 22 Apr 96. Birecik 27 Apr 96 (G & HW).
East: 3, South Van Marshes 19 May 93. 2 singing, Cenge Gölü 20 May 93. 2, Bendimahi Delta 22 May 93 (MD, GMK). Murat River 27 May 93 (MD).

Baillon's Crake *Porzana pusilla*
Status uncertain. Rarely but widely recorded on passage throughout and probably more common than records suggest. Recorded in winter from Western Anatolia. May breed very locally in small numbers.
Black Sea Coastlands: Kızılırmak Delta: singing, 8 May 92; 2 singing, 11 May 92 (Hustings & van Dijk 1994). Kaz Gölü 14 Sep 94 (G & HW).
Western Anatolia: Dalyan: male, 18 Apr 92; pair, 22 Apr 92 (IAG).
Southern Coastlands: Singing male, Göksu Delta 19–28 Mar 96 (AR).
Central Plateau: Uyuz Gölü 11 Apr 92 (Karauz Kıraç 1993). Balıkdamı 18 Sep 95 (GMK).
South-East: Birecik 17 May 92 (GMK)

Corncrake *Crex crex*
Status uncertain. Breeding recently proven in extreme north-east (Green 1997) and suspected on Central Plateau (*Sandgrouse* 20: 158). Rarely but widely recorded on passage throughout; probably more common than records suggest.
Black Sea Coastlands: Kızılırmak Delta: calling, 8 May 92; calling, 22 May 92 (Hustings & van Dijk 1994); 25 Sep 95 (CGB, DJB, GMK). Istanbul: 19 Sep 95; 28 Apr 96 (GM). Adult with 2 young, 11 km east of Şavşat 3 Aug 96 (Green 1997).
Southern Coastlands: Göksu Delta 21 Sep 94 (PY). Taşucu 13 Apr 95. Kızkalesi 28 Apr 95 (JM). Tuz Gölu, Çukurova 25 Apr 96 (NS).
Central Plateau: Calling, Middle East Technical University, Ankara 30 Apr 92 (GMK, UÖ). Calling, Sultan marshes 30 Mar 96 (AR).

Demoiselle Crane *Anthropoides virgo*
Rare and very local summer visitor to East. On passage occurs in larger numbers in East, occasionally west as far as Sea of Marmara. Records away from well-known breeding site in the Bulanık area are presented.

Southern Coastlands: Adult, Göksu Delta, 24 Mar 93 (JvdW *et al.*).
Central Plateau: 8, Ereğli marshes 2 Sep 94 (JT). Balıkdamı 16 Apr 96 (G & HW). Moğan Gölü 5 May 96 (KAB *et al.*)
East: Ağrı Ovası: 2, 17 Jun 86 (R. Jürgens); 5, 19 Jul 88 (N. K. Haaß *et al.*) have not previously been mentioned in these reports. 2, Çıldır Gölü 28 Apr 89 (M. R. K. Plaxton) has not previously been mentioned in these reports.

Little Bustard *Tetrax tetrax*
Status uncertain. A rare and localised resident or summer visitor on Central Plateau and perhaps adjacent parts of Southern Coastlands. Recorded in late autumn in East and spring in South-East (where it is reported to winter), and recently recorded in Western Anatolia and Southern Coastlands in winter. For review of historical and current status and distribution in Turkey, see Kasparek (1989).
Western Anatolia: Çamaltı Tuzlası 5 Feb 95 (GAy, GE, MY).
Southern Coastlands: Female, Göksu Delta 3 Jan 92 (Kirwan 1995).
Central Plateau: 2 females, south of Sivrihisar 8 May 92 (Bradshaw & Kirwan 1994, Kirwan 1995).

Great Bustard *Otis tarda*
Local resident and partial migrant (movements remain only partially understood) on Central Plateau and adjacent parts of Western Anatolia and Southern Coastlands, apparently in small numbers, and in South-East and East where, at least formerly, locally more common. Recorded more widely in Western Anatolia and on south coast from autumn to spring. Considerable numbers still wintered in South-East in early 1980s but no recent data from this region. Such concentrations appear too large to originate entirely from breeders in this region and may comprise birds from elsewhere in Turkey (breeding areas are largely vacated in winter) and/or outside it; there is evidence for latter possibility. Despite survey by Goriup & Parr (1985) that indicated short-term prospects for the species' survival might be less dire than previously believed and that Turkey may be one of the more important centres of distribution, recent data (e.g. Eken & Magnin in prep.) suggests that the species has declined significantly during the last two or three decades. There remains an acute need for a systematic survey of Turkish breeding populations.
Black Sea Coastlands: Fırtına river mouth 20 Apr 93 (Faldborg 1994). 4, Kızılırmak Delta 26 Dec 93 (SB, SD, MYa).
Southern Coastlands: Göksu Delta: 9, late Dec 91–mid-Jan 92 (VvdB *et al.*); 2, 16 Mar 92 (HL). 6, Burdur Gölü 8 Feb 94 (MY). 5, Eğirdir Gölü 22 Mar 93 (G & HW).
Central Plateau: Altıntaş Ovası: 8, 30 Nov 93; 11, 6 Apr 95 (GM). Aliken Plateau: 31, 13 May 93 (PC *et al.*); 19, 21 Mar 96 (MY); 35, 1 May 96 (MF). Akşehir Gölü: 3 adult males, 21 Apr 92; immature male and adult female, 3 May 92 (Bradshaw & Kirwan 1994). Tödürge Gölü 2 Jun 93 (GM). Balıkdamı 16 Apr 96 (G & HW). 3, Seyfe Gölü 30 Apr 96 (SKK). Male, Kulu Gölü 18 Apr 96 (LM, LV). Çol Gölü 2 Jun 96 (TC).
South-East: Between Yüsekova and Sölike 9 Jul 1982 (M. Bechtolsheim) has not previously been mentioned in these reports.
East: Bulanık area: 68, 13 May 92 (E & NM); 30, 30 May 92 (IAG); 4, 27 May 93 (MD); 3 Jun 93 (UK *et al.*). Immature male, between Nazik and Ovakışla 30 May 92 (IAG). Göldüzü, Van Gölü: 14, 23 Jun 92; 12, 25 Jun 92 (MC).

Cream-coloured Courser *Cursorius cursor*
Scarce summer visitor (breeding status unclear) to South-East and parts of Southern Coastlands. Recorded in autumn in East.
South-East: Birecik: 3, 19 Jun 89 (M. Jonassohn, L. Råberg *et al.*) has not previously been mentioned in these reports; 2, 31 Jul 92 (RF, JH, DM); 5 including 2 juveniles, 7 Sep 94 (JT). 2, between Birecik and Halfeti 4 Jun 94 (HH, ARo *et al.*). Pair, 12 km south-east of Birecik 28 May 91 (D. J. Bates) has not previously been mentioned in these reports.

Black-winged Pratincole *Glareola nordmanni*
Generally uncommon and local on passage, principally in eastern two-thirds of Turkey. Occasionally in considerable numbers, usually in autumn. Regularly recorded in summer, largely in East, where probably breeds locally although insufficient breeding records are available for the emergence of any pattern.
Black Sea Coastlands: Kızılırmak Delta: 26 Apr 92; 2, 5 May 92 (Hustings & van Dijk 1994); 4, 25 Sep 95 (CGB, DJB, GMK).
Southern Coastlands: Çukurova: 28, 19 Sep 94; 60, 21 Sep 94 (RT, JY). 3, Göksu Delta 14 Apr 95 (JM).
Central Plateau: Tödürge Gölü 15 Sep 94 (G & HW). Kulu Gölü 7 May 96 (AW).
East: Bendimahi Delta: 16, 6 May 89; 9, 9 May 89 (van den Berk *et al.* 1993) have not previously been mentioned in these reports.

American Golden Plover *Pluvialis dominica*
Vagrant. The first record in Turkey.
Southern Coastlands: Göksu Delta 15 May 93 (Kirwan 1995).

Lesser Sand Plover *Charadrius mongolus*
Formerly considered vagrant but recently removed from the list of birds considered to have been reliably recorded in Turkey (Flint *et al.* 1997).
East: 9, Iğdır Ovası 7 Jun 96, no description provided (R. Jürgens) has not previously been mentioned in these reports.

Dotterel *Charadrius morinellus*
Passage migrant, found locally in considerable numbers on Central Plateau, occasionally in smaller numbers elsewhere. Has occurred in summer on Central Plateau, but no evidence of breeding, and in early winter on Central Plateau and South-East.
Black Sea Coastlands: Kızılırmak Delta: 26 Mar 92; 2, 7 Apr 92; 2, 29 Apr (Hustings & van Dijk 1994); 25 Sep 95 (CGB, DJB, GMK).
Central Plateau: 400, north-east of Cihanbeyli 17 Apr 93 (PC *et al.*). 28, 42 km north of Afyon 3 Apr 96 (LM, LV). Sultan marshes 15 Nov 87 (G. Magnin) has not previously been mentioned in these reports.

Sociable Plover *Chettusia gregaria*
Rare passage migrant, perhaps formerly more common. Recorded in spring in Black Sea Coastlands, Western Anatolia, Southern Coastlands, Central Plateau and South-East, and in autumn in eastern Black Sea Coastlands, Western Anatolia and East. For a review of the species' status see Kasparek (1992b).
Black Sea Coastlands: Kızılırmak Delta 25–30 Apr 92 (Hustings & van Dijk 1994).
Southern Coastlands: Yemişli Gölü, Çukurova 5 Apr 90 (Kivit *et al.* 1994) has not previously been mentioned in these reports.
East: Yehegnoot, Armenia 7 Nov 95, flew into Turkey (MSS)

White-tailed Plover *Chettusia leucura*
Status uncertain. Has bred Southern Coastlands and Central Plateau, but no confirmed breeding records since 1986 and sites now drained. Occasionally recorded between spring and autumn, usually in very small numbers, from Southern Coastlands, Central Plateau, South-East and East. For review of status and distribution see Kasparek (1992b).
Central Plateau: 2 perhaps breeding, Sultan marshes 9 Jul 96 (AHJH, JW).
South-East: Displaying, Birecik 18 May 92 (GMK).
East: 2, Iğdır Ovası 7 Jun 86 (R. Jürgens) has not previously been mentioned in these reports.

White-rumped Sandpiper *Calidris fuscicollis*
Vagrant. The first record in Turkey and the Middle East.
Southern Coastlands: Göksu Delta 17 May 96 (Browne 1997).

Great Snipe *Gallinago media*
Probably not uncommon passage migrant in wetlands across Turkey. Recorded in winter on Central Plateau and in south. For discussion of status and distribution see Kirwan (1992).
Black Sea Coastlands: Kızılırmak Delta: 10 singles between 13 Apr and 5 Jun 92 (Hustings & van Dijk 1994).
Western Anatolia: Uluabat Gölü 21 Sep 92 (GMK *et al.*). Marmara Gölü 12 May 93 (GM). Hamıt 9 Apr 95 (RB). Altınova 20 Apr 96 (LM, LV).
Southern Coastlands: Göksu Delta: 21 Sep 94 (PY); 25–26 Apr 96 (AR). Çukurova: 2 Mar 90; 5 Mar 90; 13 Apr 90; 2, 28–30 Apr 90; 3 May 90; 10 May 90; 17 May 90 (Kivit *et al.* 1994) have not previously been mentioned in these reports; 28 Mar 93 (JvdW *et al.*).
Central Plateau: Sultan marshes 24 May 94 (*Birdquest Newsletter* 23: 59). Kulu Gölü 4 Apr 96 (AR). 4, Balıkdamı 16 Apr 96 (G & HW).
South-East: Birecik 27 May 94 (PW & SAS).
East: 6, Çıldır Gölü 5 Jun 92 (GSa *et al.*). South Van marshes 11 May 89 (van den Berk *et al.* 1993) has not previously been mentioned in these reports.

Pomarine Skua *Stercorarius pomarinus*
Vagrant.
Western Anatolia: 3, Küçük Menderes Delta 18 Jun 93 (JF).
Southern Coastlands: 3, Kulak beach, Çukurova 22 Mar 96, description supplied (AR). 2 possibles, Kızkalesi 27 May 95 (IG *et al.*).

Arctic Skua *Stercorarius parasiticus*
Scarce but regular passage migrant along Black Sea coast, and through Bosphorus and Sea of Marmara. Probably also regular on Aegean and Mediterranean coasts. Recorded inland in several regions.
Black Sea Coastlands: 3, Kızılırmak Delta 24 Sep 95 (CGB, DJB, GMK). 2, Fatsa 12 Feb 95 (S & SB, SD).
Thrace: Bosphorus 28 Mar 93 (JF). Rumelifeneri 19 Jan 91. 2, Demirciköy 25 May 91. Büyükçekmece 11 Sep 91 (KAB) have not previously been mentioned in these reports.
Western Anatolia: Kocaçay Delta: 23 Sep 90, has not previously been mentioned in these reports; 2, 19 Sep 93 (Ertan 1996).
Southern Coastlands: Çukurova: 28 Mar 93 (JvdW *et al.*); 5, 9 Apr 94; 13 Apr 94; 14 Apr 94 (C & CB). Göksu Delta: 28 Mar 96; 2, 29 Mar 96 (AR); 3, 9 Apr 96 (J-PP); 6, 11 Jul 96 (AHJH, JW). Kızkalesi 5 May 92 (BP *et al.*). 10, Antalya 8 Jun 93 (UK *et al.*). East of Antalya 22 Jun 90 (J. Wallander *et al.*) has not previously been mentioned in these reports.

Long-tailed Skua *Stercorarius longicaudus*
Vagrant. The sixth and seventh records in Turkey.
Southern Coastlands: Adult off Kale, west of Finike 24 May 92 (Kirwan 1995).
Central Plateau: Pale phase adult, Sultan marshes 10 Jun 94 (Kirwan 1995).

Great Skua *Catharacta skua*
Vagrant. Fourth record in Turkey.
Southern Coastlands: Göksu Delta 15 Apr 96 (J-PP), description supplied.

Great Black-headed Gull *Larus ichthyaetus*
Uncommon. A recent substantial increase in winter records is perhaps more likely to reflect true status during this season than an increase in observer coverage. Records during other seasons presumably reflect the movements of non-breeding or immature birds. Recorded in wetlands and coastal areas in all regions, but few records from Thrace, Western Anatolia, South-East and East.
Black Sea Coastlands: Yedikır Barajı: 5, 16 Jan 92 (DHKD 1992); 168, 19 Dec 95 (GM); 71, 10 Jan 96 (DHKD 1996). Kızılırmak Delta: 8, 18 Jan 92 (Samsun Bird Group); 3, 1 Feb 92; 8, 2 Feb 92; 20, 3 Feb 92 (LJD, MK); 2, 8 Mar 92 (Samsun Bird Group); adult, 28 Mar 92; adult, 8 May 92 (Hustings & van Dijk 1994); 18, 30 Jan 93 (DHKD 1993); 28–29 Jan 95 (SB); 3, 10 Dec 95; 6, 14 Jan 96 (DHKD 1996). Fırtına river mouth: 5 adults, 8 Apr 93; 2nd year, 19 Apr 93 (Faldborg 1994). Aralık, Eynesil 11 Feb 95 (S & SB, SD).

Thrace: Immature, Bosphorus 25 Sep 95 (Ecsedi 1996).
Western Anatolia: Uluabat Gölü 18 Mar 93 (G & HW).
Southern Coastlands: Göksu Delta: 4, 24 Jan 93 (DHKD 1993); 25 May 93 (RPM); 4, 23 Jan 95 (V & IvdB, HG); second year, 11 Apr 95 (JM); 2, 12 Jan 96 (DHKD 1996); 8 Apr 96 (J-PP). Yumurtalık lagoon: 28 Jan 92 (DHKD 1992); 16, 21 Jan 93 (DHKD 1993); 11, 10 Jan 96 (DHKD 1996). 7, Akyatan Gölü 23 Jan 93 (DHKD 1993). 4, Ağyatan Gölü 22 Jan 93. 4, Tuzla Gölü 22 Jan 93 (DHKD 1993). 5, Seyhan Barajı, 17 Jan 96 (DHKD 1996). 2, Arsuz 9 Mar 94 (per GMn). Çukurova: adult, 7 Mar 90; 21 Mar 90; first-summer, 30 Mar 90; first-summer, 23 Apr 90; adult, 4 May 90 (Kivit *et al.* 1994) have not previously been mentioned in these reports.
Central Plateau: Hirfanlı Barajı: 3, 20 Jan 92 (DHKD 1992); 5, 17 Jan 93 (DHKD 1993); 13, 7 Dec 93 (GM); 21 Jan 96 (DHKD 1996).
South-East: 24, Karakaya Barajı 19 Jan 93 (DHKD 1993)

Great Black-backed Gull *Larus marinus*
Vagrant or scarce winter visitor. Occasionally recorded in late spring.
Black Sea Coastlands: Kızılırmak Delta: adult, 1–2 Feb 92 (DHKD 1992, Kirwan 1995); 4, 3 Feb 92 (LJD, MK); 3, 22 Mar 92; adult, 20 May 92 (Hustings & van Dijk 1994, Kirwan 1995); 29 Jan 95 (SB).
Thrace: Adult, Üsküdar, Istanbul 13 Feb 96 (KAB).
Southern Coastlands: 2, Göksu Delta 31 Mar 95 (G & HW).

Kittiwake *Rissa tridactyla*
Formerly considered vagrant, but post-1996 records suggest it may be an uncommon, but regular, winter visitor in small numbers to Black Sea Coastlands and Thrace. Comparatively few records from other regions.
Thrace: Juvenile, Rumelifeneri 3 Jan 93 (KAB). 3, Karaburun 28 Dec 94 (JT).
Western Anatolia: First-winter, Karabiga 21 Feb 96 (GE).
Southern Coastlands: Immature, Kızkalesi 5 May 92 (Kirwan 1995). 3 first-summers, Karataş, Çukurova 14 Apr 94 (C & CB).
Central Plateau: Adult, Kulu Gölü 27 Apr 92 (Kirwan 1995).

Arctic Tern *Sterna paradisea*
Vagrant.
Western Anatolia: Several off Iztuzu beach, Dalyan 27 Apr 96 (A & SD).

Ring-necked Parakeet *Psittacula krameri*
Introduced. Since the first records in the mid-1970s (Kasparek & Bilgin 1996, Boyla *et al.* 1998) has become well established in several cities in western and central Turkey. Status recently reviewed by Boyla *et al.* (1998) and all records below have been summarised from this source.
Black Sea Coastlands: Three records, the easternmost being in Kızılırmak Delta.
Thrace: Regularly recorded at Terkos Gölü in 1995 and 1996, and in Istanbul where regularly observed since 1992, from Küçükçekmece Gölü in the west to Bostancı in the east. Flocks regularly recorded at Yeşilköy (up to 5), Yedikule (up to 100), Zeytinburnu (up to 30) Taksim (up to 40), Beşiktaş (up to 100), Çamlıca (up to 40) and Bağdat Caddesi (up to 10). Also recorded at Rumelifeneri and Polonezköy.
Western Anatolia: Nine localities, most known from single records, with the principal exception of Izmir, where recorded since 1992 (max. 250 on 5 Dec 95), although local people claim that the species has been present since 1950s.
Southern Coastlands: Four localities, with most records from Burdur Gölü and Adana.
Central Anatolia: Well established in Ankara with first records from Kavaklıdere district in 1975 and 1976, and regularly recorded in several areas of the city since early 1990s (max. 35 at Sögütözü Parkı 2 Dec 93). Records from three other localities.
South East: Known from three localities, the easternmost being Şanlıurfa.

Grey-headed Woodpecker *Picus canus*
Apparently widespread but local resident in the north of the country. Rare and local resident in the Taurus mountains.

Black Sea Coastlands: Çamlıhemşin: regularly recorded Apr–8 Jun 93 where nest discovered 3 May (Faldborg 1994). Sülüklü Gölü: 2, 30 Apr 93; 2 Sep 93 (GM, MY). Zilkale, between Çat and Çamlıhemşin 24 Apr 93. Yedigöller Milli Parkı 2–3 Jun 94 (JF). Between Alaçam and Kizlan 29 May 93 (Kirwan 1995). Ayder 26 Jul 91 (Faldborg 1994, Kirwan 1995) has not previously been mentioned in these reports.
Thrace: Belgrade Forest: 10 Nov 95 (BG); 4 Jun 96 (GMK). 3, Iğneada 4 May 94 (BB, NP). Regularly recorded breeding bird with a total of 55 observations, between Küplü and Ipsala Apr 95–Feb 96 (Ayaş & Kiziroğlu in prep.).
Southern Coastlands: 5 km south of Uzuncaburç 17 Jun 96 (GMK).

White-backed Woodpecker *Dendrocopus leucotos*
Status uncertain. Apparently rare and very local resident in Black Sea Coastlands, Thrace, Western Anatolia and Southern Coastlands.
Black Sea Coastlands: Male, Konaklar 6 May 93 (Faldborg 1994). Polonezköy, Istanbul 2 May 93 (GM).
Southern Coastlands: Akseki: 2, 22 Jun 90 (JW *et al.*) has not previously been mentioned in these reports; female, 26 Jun 92 (GMa, NW); 2 Jun 93 (PB *et al.*); 2, 8 Jun 93 (UK *et al.*); 1 Jul 93 (MCo, AH, SdP); 15 Aug 93 (CB, JLC); 31 May 94 (ARo *et al.*); 18 May 96 (SBr, PG).

Bar-tailed Desert Lark *Ammomanes cincturus*
Vagrant. The record has been submitted to the Danish Rarities Committee.
Southern Coastlands: Göksu Delta 12 May 1987 has not previously been mentioned in these reports; some descriptive details supplied (T. Andersen *et al.*).

Richard's Pipit *Anthus richardi*
Vagrant, perhaps regular passage migrant in very small numbers in all regions except South-East.
Black Sea Coastlands: Kızılırmak Delta: 20 Mar 92; 3, 31 Mar 92; 2, 3 Apr 92; 5 Apr 92; 17 Apr 92; 25 Apr 92; 27 Apr 92; 29 Apr 92; 4 Jun 92 (Hustings & van Dijk 1994, Kirwan 1995). 2, Sakarya Delta 21 Oct 95 (MY).
Thrace: First-winter, near Iğneada 12 Sep 96 (KAB).
Western Anatolia: 3, between Bucak and Heraklia 30 Sep 96 (FJ).
Southern Coastlands: 4, Çukurova 12 Oct 94 (RT, JY). 2, Göksu Delta 11 Apr 95 (JM).
Central Plateau: Kulu Gölü 2 Oct 94 (PY).

Olive-backed Pipit *Anthus hodgsoni*
Vagrant. The first record in Turkey.
Black Sea Coastlands: Kızılırmak Delta 13 Apr 92 (Kirwan 1993, 1995).

Citrine Wagtail *Motacilla citreola*
Not uncommon summer visitor to eastern Black Sea Coastlands, East (see Kasparek 1992a) and Central Plateau. Apparently increasing and spreading, and breeding expected in other regions in the near future. Widespread and fairly common on passage, although scarcer in western third of the country. Only records suggestive of breeding are presented below.
Black Sea Coastlands: Erzurum Ovası: pair, 13 May 93 (Faldborg 1994); 21 Jun 94 (JF); 2 pairs, 6 Jul 96 (AHJH, JW). Immature, above Dilberdüzü, Kaçkar 31 Jul 96 (IG *et al.*).
Central Plateau: Akşehir Gölü: recorded in small numbers and showing agitated behaviour as if breeding during 19 Jun–5 Jul 94 (Langeveld & Ruiters 1994). Tödürge Gölü: 2 Jun 93 (GM); 5 including 2 pairs, 25–26 Jun 94 (JF).
South-East: Juvenile, Birecik 10 Aug 92 (HK).
East: Çıldır Gölü: 50, 5 Jun 92 (Andersen *et al.* 1993); 10+, 29 Jun 95 (MY). Ardahan marsh: pair, 6 Jun 92 (GSa *et al.*); 1 Aug 94 (IG *et al.*); 6, 29 Jun 95 (GM); 4, 5 Aug 96 (IG *et al.*). Erçek Gölü: 2 pairs, 15 Jun 90 (J. Wallander *et al.*) has not previously been mentioned in these reports; 5, 27 May 92 (IAG); 2 males, 23 May 93 (MD, GMK). Ahlat marsh: pair, 22–23 Jun 92 (Cocker & Temple-Lang 1993); 4, 17–18 May 93. Male, Bendimahi Delta 22 May 93 (MD, GMK). Male, near Soğusku 24 May 94 (LB). Saz Gölü, Doğubayazıt: pair, 17 Jun 1981 (M. Bechtolsheim) has not previously been mentioned in these reports; 5 singing males, 25 May 93 (MD, GMK). 5,

Çaldıran 29 May 94 (LB). 2 pairs, south-east of Horasan 4 Jun 94 (PW & SAS). Iğdır Ovası 7 Jun 86 (R. Jürgens) has not previously been mentioned in these reports. 2 pairs, Ararat 16 Jun 90 (J. Wallander *et al.*) has not previously been mentioned in these reports.

Waxwing *Bombycilla garrulus*
Vagrant. The tenth record in Turkey.
Western Anatolia: Büyük Menderes Delta 1 Jan 94 (GS).

Grey Hypocolius *Hypocolius ampelinus*
Vagrant. The first record in Turkey.
East: Ağrı 1 Aug 86, description supplied; the record has been accepted by the Norwegian rarities committee (Kirwan 1995).

Pied Wheatear *Oenanthe pleschanka*
Status uncertain. Formerly believed to be primarily an uncommon passage migrant, mainly through eastern two-thirds of Turkey. However, several records at coastal localities in Southern Coastlands of definite *cypriaca* (see Cyprus Pied Wheatear below) demonstrating unsurprising occurrence of this form as an apparently regular overshooting spring migrant on south coast confuse this assessment. Thus many previous records of 'Pied Wheatear' particularly in central southern Turkey, are probably attributable to *cypriaca*. Status of *cypriaca* and the continental form *pleschanka* can only be clarified if observers supply detailed field descriptions for future records. Records listed were submitted as *pleschanka*, but some at least, on the basis of the evidence presented, could equally refer to *cypriaca*.
Black Sea Coastlands: Kızılırmak Delta: 10 between 13 Apr and 6 May 92 (Hustings & van Dijk 1994).
Western Anatolia: Male, Pamukkale 6 May 96 (GB).
Southern Coastlands: Göksu Delta: female, 8 Apr 96 (J-PP); 4 males, 15 Apr 96; 3 males, 16 Apr 96 (AR). Çukurova: 34 between 19 Mar and 16 Apr 90 (Kivit *et al.* 1994) have not previously been mentioned in these reports.
Central Plateau: Sakarya Barajı 16 Apr 95 (KAB).
East: Male and 3 female/immatures, 25 km north-west of Iğdır 6 Aug 92 (RF, JH, DM). Ahlat marsh 17 May 93 (GMK).

Cyprus Pied Wheatear *Oenanthe cypriaca*
Regular passage migrant (overshooting breeding range in Cyprus) to coastal localities in Southern Coastlands and perhaps elsewhere (see Pied Wheatear).
Southern Coastlands: Göksu Delta: 9 Apr 89 (G. Magnin) has not previously been mentioned in these reports; 9, 24 Mar 93 (JvdW *et al.*); 2, 31 Mar 95 (G & HW); 2 females, 11 Apr 95; male, 12 Apr 95 (JM); 3, 8 Apr 96; female, 9 Apr 96; 2 females, 15 Apr 96 (J-PP); male, 16 Apr 96 (AR). Taşucu: male, 11 Apr 90 (J. Lundberg, F. Nordwall) has not previously been mentioned in these reports; 4, 28 Mar 93 (JvdW *et al.*); female, 13 Apr 95 (JM). Çukurova: 2, 16 Apr 90 (Kivit *et al.* 1994) has not previously been mentioned in these reports; 26 Mar 93; 27 Mar 93; 3, 28 Mar 93 (JvdW *et al.*); female, 7 Apr 94; 2, 10 Apr 94 (C & CB); 2 males, 7 Apr 96; female, 8 Apr 96; 3 male and 3 females, 9 Apr 96 (LM, LV).

Mourning Wheatear *Oenanthe lugens*
Vagrant. The second record in Turkey.
Southern Coastlands: Female, Göksu Delta 15 Apr 96 (J-PP), description supplied.

White-crowned Black Wheatear *Oenanthe leucopyga*
Vagrant. The first and second records in Turkey.
Southern Coastlands: Juvenile, Pınarbaşı 12 Aug 93 (Sorace 1996); adult, Yumurtalık lagoon 9 Mar 96, description supplied (NS).

River Warbler *Locustella fluviatilis*
Rare passage migrant in small numbers across Turkey. Probably more widespread and frequent than records suggest. A recent June record from Black Sea Coastlands suggests that the species may occasionally breed in Turkey.

Black Sea Coastlands: 3 singing, Yeşilırmak Delta 6–7 Jun 93 (GMK).
Western Anatolia: Dalyan: singing, 26 Apr; singing, 6 May 92 (IAG); singing, 4 May 96 (A & SD). Singing, Köyceğiz, 5 May 95. Singing, Değirmen river, 5 May 95. Singing, Yenihisar, 6 May 95. Singing, Bafa Gölü, 6 May 95 (TB, HB). Total of 7 singing at scattered sites, 24 Apr–8 May 95 (DG in *Birding World* 8: 178). Avsar 27 Apr 90 (N. K. Haaß) has not previously been mentioned in these reports.
Southern Coastlands: Singing, Bozkır 17 May 94 (LB).

Aquatic Warbler *Acrocephalus paludicola*
Vagrant.
Black Sea Coastlands: Kızılırmak Delta 1 May 92 (Hustings & van Dijk 1994) is without description (Kirwan 1995).

Paddyfield Warbler *Acrocephalus agricola*
Very rare summer visitor to two sites in the East. Very scarce passage migrant elsewhere.
East: South Van marshes: 5–10 singing males, 11 May 89 (van den Berk *et al.* 1993); 2, 15 Jun 90 (J. Wallander *et al.*) have not previously been mentioned in these reports; 12 May 92 (E & NM); 2, 19 May 93 (MD, GMK); 29 May 93 (MW); 6–8, 1 Jun 93 (UK *et al.*); singing, 7 Jul 93 (MCo, AH, SdP); 5 Jun 94 (PW & SAS); c. 6, 6 Jun 94 (ARo *et al.*); 3 including 1 juvenile, 23 Jun 94 (JFr, HS); 10 Jul 95 (MY). Cenge Gölü: 6, 11 May 92 (E & NM); 9, 20 May 93. Erçek Gölü 20 May 93. 2, Bulanık 27 May 93 (Kirwan 1995).

Booted Warbler *Hippolais caligata*
Vagrant, or perhaps regular passage migrant in very small numbers through eastern third of the country.
Black Sea Coastlands: Rize: 2–3, 15 Aug 90; 29 Aug 91 have not previously been mentioned in these reports; 5 Aug 93 (Dierschke *et al.* 1996).
Southern Coastlands: Mersin 25–26 Apr 93 (Kirwan 1995).
South-East: Birecik 24 May 92, no description available (IAG).
East: Erçek Gölü 20 May 93 (Kirwan 1994).

Greenish Warbler *Phylloscopus trochiloides*
Status uncertain, perhaps only vagrant.
Black Sea Coastlands: Singing, Kızılırmak Delta 29 Apr 92, listed without description (Hustings & van Dijk 1994, Kirwan 1995).
Central Plateau: Göksu Delta 29 Apr 95, no description available (Balch & Maybank 1996).

Hume's Yellow-browed Warbler *Phylloscopus humei*
Vagrant. The first record in Turkey.
Thrace: Topkapı Sarayı, Istanbul 28 Dec 94 (Ebels 1996).

Great Grey Shrike *Lanius excubitor*
Scarce winter visitor to the western two-thirds of Turkey.
Black Sea Coastlands: Kızılırmak Delta: 17–25 Mar 92; 9 Apr 92 (Hustings & van Dijk 1994).
Thrace: Keşan 14 Jan 94 (GM, MY).
Central Plateau: Between Ahiler and Sivrihisar 22 Jan 92. East of Ereğli 25 Jan 92 (LJD, MK). Middle East Technical University campus, Ankara 12 Nov 95 (KAB).

Common Myna *Acridotheres tristis*
Status uncertain. As a variety of escaped species have been noted from Ankara and environs, the record below is assumed to originate from escapees rather than reflecting westward range expansion.
Central Plateau: Pair bred producing three fledged young, Middle East Technical University, Ankara 12 May–21 July 96 (Bilgin 1996).

Redpoll *Carduelis flammea*
Very rare and irregular winter visitor. One summer record from Black Sea Coastlands.
Black Sea Coastlands: 25, Kızılırmak Delta 26 Mar 92 (Kirwan 1995). 10, Uzungol, Trabzon Jul 95 (GAy).

Trumpeter Finch *Bucanetes githagineus*
Probably rare summer visitor, recorded from Southern Coastlands, South-East and East. Occurrence perhaps due more to nomadic rather than strictly seasonal movements. Has bred.
South-East: Male and 2 females, Birecik 17 May 92 (Kirwan 1995). 2–3 singing males, Işıklı 14–15 Jun 96 (PD, GMK, RPM).

Mongolian Trumpeter Finch *Bucanetes mongolicus*
A series of recent (and two old and poorly-documented) records from extreme East suggest that the species is a local but well-established resident breeder. For a recent review of the species' status in Turkey see Kirwan & Konrad (1995).
East: c. 10 photographed, 30 km south-east of Van, 1 May 77 (S. Willig); 3, including an immature, photographed, Sultanbabadağı, Tunceli, 23 Aug 82 (M. Bechtolsheim) have not previously been mentioned in these reports and are the first and second records from modern-day Turkey. Ishakpaşa Sarayı, Doğubayazıt: juvenile, 17 Jul 88 (N. K. Haaß *et al.*) has not previously been mentioned in these reports; 6, 25–26 Jun 92 (MC); 12, 4 Jul 92 (RH); 3–4, 9–10 Jul 93 (MCo, AH, SdP); male, 29 May 94 (LB); juvenile, 21 Jun 94 (JFr, HS); 20–42 many in pairs, early Jun 96 (HS). 11, 30 km west of Tuzluca 3 Jun 92. 9, 52 km south of Kars 4 Jun 92 (GSa *et al.*). 4, 25 km west of Iğdır 6 Aug 92 (RF, JH, DM). 3, 9 km north-east of Özalp 30 May 93 (MW). 5, Aydınkavak, north-west of Tuzluca 8 Jun 94 (ARo *et al.*). 3, Soğusku 2 Jun 93 (UK *et al.*). 45 km south of Doğubayazıt 6 Jun 94 (PW & SAS).

Snow Bunting *by James P. Smith*

Snow Bunting *Plectrophenax nivalis*
Vagrant.
Black Sea Coastlands: Kızılırmak Delta: 8, 2 Feb 92 (Dijksen & Klemann 1992); 46, 7 Nov 92 (Kirwan 1995).

Lapland Bunting *Calcarius lapponicus*
Vagrant. The first record in Turkey.
Black Sea Coastlands: Yeşilırmak Delta 18 Sep 87, has not previously been mentioned in these reports; details of the call note were provided (A. A. Dijkstra, H. Westdorp).

Little Bunting *Emberiza pusilla*
Vagrant.
Black Sea Coastlands: Kızılırmak Delta: 15 Apr 92; male, 26 Apr 92 (Hustings & van Dijk 1994, Kirwan 1995).

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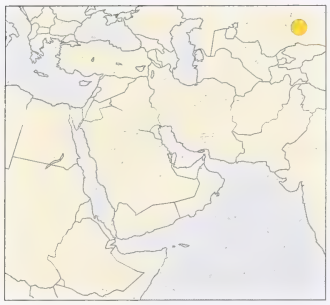
A baseline survey of Lesser Kestrel *Falco naumanni* in south-east Kazakhstan, April–May 1997

STEPHEN J. PARR, SERGEI SKLYARENKO, SERGEI BROKHOVICH, JANE BROOKHOUSE, PAUL N. COLLIN AND BORJA HEREDIA



The Lesser Kestrel Falco naumanni population in south-east Kazakhstan is estimated, from a random sample survey of 40 10-km squares, at 500–2000 pairs. Breeding colonies were found most commonly in rock cliffs, but also in sand cliffs along rivers. Colony presence was associated with presence of rock cliffs, grass steppe and maximum altitude of 1000–2000 metres. Maximum altitude was easier to model than grass steppe or the presence of rock cliffs because of the limitations of available maps. A maximum altitude model predicted a population of c. 2000 pairs, close to the upper 95% confidence limit of the extra polated estimate. The population was apparently unthreatened by land-use changes, as agriculture in the region was depressed and abandoned in marginal habitats. The contrast with central Turkey and southern Spain where colonies are associated with flat topography, threatened by intensive non-rotational agriculture and nests located in cavities within buildings is discussed.

INTRODUCTION

LESSER KESTREL *Falco naumanni* is a small falcon that breeds colonially in buildings, or in cliffs, and hunts over open country. It was formerly widely distributed across the Palearctic south of 55°N. It is currently classified as globally threatened because of widespread population declines related to habitat change and pesticide use in the Western Palearctic (Collar *et al.* 1994). Its status in the Eastern Palearctic is poorly known, but it was recently estimated that the Republic of Kazakhstan holds more than 10,000 pairs, making it the largest national population in the world (Zollinger & Hagemeijer 1994). The International Action Plan (Biber 1996) recommended that surveys be undertaken to establish its status and identify key breeding concentrations in this country. Steppe and dry grassland are important foraging habitats (Parr *et al.* 1997), of which Kazakhstan holds a very large and important resource (Walter & Box 1983). The economic and agricultural reforms initiated with the formation of the Republic of Kazakhstan in 1991, following the collapse of the Soviet Union, make this an opportune time to conduct a baseline survey. Future, repeat surveys will provide a means to monitor population trends, and provide an indication of the health of open-country habitats.

Figure 1. Diagram of 158 000 km² study area in south-east Kazakhstan. The area surveyed excluded land over 3,000 metres and water-bodies.

Zollinger & Hagemeijer (1994) identified five population concentrations in Kazakhstan. The largest stretched across the north of the country and approximately corresponded with the dry steppe vegetation zone of Walter & Box (1983). The other four smaller concentrations corresponded to areas of montane steppe in the east and south-east. The study area included two of these, south and south-east of Lake Balkhash (Fig. 1) and covered an area of c. 158,000 km^2, approximately 6% of the country.

METHODS

The project was a partnership between two scientists from the Institute of Zoology in Almaty and four European ecologists with experience of similar work in Turkey and Spain. The survey team used two 4-WD vehicles together with two experienced drivers. The methods mirrored those employed to produce a population estimate for central Turkey (Parr *et al.* 1995). A 5% random sample of all open country 10-km squares—high mountains and water bodies being excluded—was attempted using the Universal Transverse Mercator grid from US Tactical Pilotage Charts. This produced a total of 79 10-km squares in the survey area.

In south-east Kazakhstan, Lesser Kestrel is known to breed in natural sites, either in rock cliffs or in sand cliffs along rivers (S. Sklyarenko pers. obs.), whereas in Turkey they breed under roof tiles and other cavities within settlements (Parr *et al.* 1995). Hence, all potential rock and river cliff sites within randomly selected 10-km squares were checked for the presence of colonies. Nine habitat types: grassland, *Artemisia* spp. steppe, sand/stone desert, sand dune, wetland, upland scrub, arable agriculture, long-term fallow and poor fallow, were recorded as either present or absent within 10-km squares, as measuring areas proved difficult and time-consuming because of the low density of tracks. Travel overland was possible but slow. Three other variables, mean altitude, maximum altitude and topography score were measured from the US Tactical Pilotage Charts. A car-mounted GPS system (Magellan 2000 plus adaptor) was used to locate each 10-km square and thence plot the survey route on 1:500,000 maps US Tactical Pilotage Charts as no accurate, smaller-scale maps were available and there was a general lack of spatial reference points in the landscape.

Forty randomly selected 10-km squares were checked between 26 April and 20 May 1997. The mean length of time spent in each square was 2.8 ± 0.4 hours. Thirty-nine squares were not surveyed because of lack of time. At the start of the fieldwork in the south-east of the survey area, all squares within UTM grid squares were checked to complete the 5% sample (squares DJ, EJ and FJ). It swiftly became apparent, from checking squares further north in desert and wetland habitats (squares DK, EK and FK), that these flat, open-country areas contained no available cliff nest sites. Thus coverage in these areas, which were clearly defined on the US Tactical Pilotage Charts, was reduced and survey effort concentrated on 10-km squares lying adjacent to mountain ranges, as well as squares that contained low hills with potential nest sites. Hence, 34 of the 39 unsurveyed 10-km squares were within desert, sand-dune or wetland habitats and most probably did not hold breeding Lesser Kestrels. Overall coverage of potential breeding habitats in the region was close to 5%.

RESULTS

Lesser Kestrel was recorded in ten (25%) of the 40 squares checked. In two 10-km squares, flocks were recorded hunting over open country and the presumed nest sites were in adjacent 10-km squares. In the remainder, birds were recorded at, or adjacent to, cliff nesting sites and were classified as breeding. Colonies in rock cliffs on the edges of mountains or hills were located in a total of 14 10-km squares, seven of which

were located in non-random squares and one 10-km square held colonies of Lesser Kestrels within sand and rock cliffs along a river. The mean flock size within random squares was 12.1 ± 2.2, with a maximum of 29. Extrapolation from the 5% sample of open-country habitats, assuming that all unsurveyed squares did not hold colonies, gave an estimate for the survey area of 2600 individuals (Table 1) within only 62,000 km^2 (40%) of the 158,000 km^2 survey area. Three 100-km squares—DJ, KP and MS—held more than 500 birds each. 95% confidence limits were calculated, which gave a population estimate of 2600 ± 1470 individuals. Assuming all birds observed were breeding gave an estimate of c. 500–2000 breeding pairs.

Table 1. Summary of Lesser Kestrel *Falco naumanni* (LK) data collected in south-east Kazakhstan, April–May 1997.

100-km square	5% sample*	Number surveyed	Number occupied	LK number	LK population estimate
DJ	5	5	2	32	640
DK	5	3	0	0	0
EJ	5	5	2	13	260
EK	5	2	0	0	0
EL	5	0			0
EM	2	0			0
FJ	5	5	1	14	280
FK	5	2	0	0	0
FL	5	0			0
FM	2	0			0
GJ	2	1	0	0	0
GK	2	2	0	0	0
GL	1	0			0
GM	1	0			0
KP	2	2	2	28	560
KQ	1	1	0		0
KR**	2	0			0+
LP**	5	1	1	9	180+
LQ	1	1	0	0	0
LR	5	2	0	0	0
LS	4	2	0	0	0
MR	4	2	1	5	100
MS	5	4	1	29	580
TOTAL	79	40	10	130	2 600+

* 5% sample of open country habitats

** one square in KR and four in LP held potential nesting habitat but the remaining unchecked squares were all within the desert or sand-dune habitats and were unlikely to support colonies

Individual logistic regression models were constructed for each independent variable, concerning the presence or absence of Lesser Kestrel, to best establish any associations with habitats or other variables, because the sample of occupied 10-km squares by breeding colonies (n = 8) was so low. This revealed that four measures—topography, mean altitude, maximum altitude and the presence of grass steppe—exhibited a significant positive correlation with the presence of breeding Lesser Kestrel (Table 2). A matrix of product-moment coefficients demonstrated that all these measures were significantly inter-correlated and also that grass steppe was significantly negatively

Table 2. Logistic regression results of four significant independent variables on Lesser Kestrel *Falco naumanni* presence.

Variable	Estimate	SE	T-ratio	*P*
Max. Altitude	0.001	0	2.476	0.013
Altitude	0.001	0	2.243	0.025
Topography	0.229	0.081	2.834	0.005
Grass Steppe	3.045	1.144	2.661	0.008

Table 3. Matrix of product-moment coefficients of 14 independent variables. (correlations significant at $p < 0.05$ in bold).

Altitude	Arable	Art. St	Desert	Fallow	Grass St	Max. Alt	P. Fallow	Rock Cl	S. Dune	Sand Cl	Topog	U. Scrub	Wetland
1.000													
-0.116	1.000												
0.319	-0.357	1.000											
-0.300	-0.352	0.020	1.000										
-0.199	0.799	-0.156	-0.352	1.000									
0.588	0.013	0.182	-0.357	0.013	1.000								
0.949	-0.215	0.289	-0.160	-0.295	0.533	1.000							
-0.006	0.150	-0.034	-0.154	0.317	0.086	-0.089	1.000						
0.638	-0.037	0.137	-0.200	-0.037	0.623	0.636	-0.070	1.000					
-0.378	-0.221	-0.245	-0.039	-0.352	-0.357	-0.382	-0.154	-0.338	1.000				
0.214	-0.207	0.006	-0.091	-0.207	0.077	0.294	0.020	0.232	-0.091	1.000			
0.842	-0.251	0.225	-0.260	-0.284	0.503	0.845	-0.122	0.628	-0.260	0.510	1.000		
0.650	-0.246	0.190	-0.174	-0.246	0.488	0.653	-0.126	0.515	-0.174	0.158	0.656	1.000	
-0.378	0.306	-0.377	0.134	0.175	-0.085	-0.312	0.066	-0.062	-0.039	0.067	-0.260	-0.174	1.000

Altitude	Mean altitude measured from 4 corners of 10-km square
Arable	Arable agriculture
Art St	Artemisia-dominated steppe
Desert	Sand/stone desert
Fallow	Long term fallow land
Grass St	Grass-dominated steppe
Max. Alt	Maximum altitude within 10-km square
P. Fallow	Poor fallow land
Rock cliff	Presence of rock cliff
S. Dune	Sand dune dominated by scrub
Sand cliff	Presence of sand cliff along river channel
Topog	Topography score: number of contour intersections along 10-km square boundary
U. Scrub	Upland scrub habitats
Wetland	All wetland and riverine habitats

correlated with desert and wetland habitats (Table 3). These results confirmed that breeding Lesser Kestrel in south-east Kazakhstan are restricted to nesting in areas with cliff nest sites. These are predominantly in low hills or on the edge of mountain ranges.

Normal regression analysis of the same four variables on the square root of Lesser Kestrel breeding numbers demonstrated that all were similarly significantly related. The same analysis, including the non-random sample, proved that the presence of grass steppe was the best predictor ($r^2 = 27.0$, *d.f.* = 46, $p = 0.001$). There were no available vegetation maps for the study area and hence no means of mapping the extent of grass steppe and predicting the population size using the regression model. However, maximum altitude was an easily measured attribute and a line fitted by distance-weighted least squares (a weighted quadratic regression) produced a non-linear model that most usefully explains the observed distribution of breeding colonies ($r^2 = 20.6$, *d.f.* = 46, $p<0.01$). The model suggested that colonies are be absent from low-lying desert, sand-dune and wetland habitats, as these held no cliff breeding sites and were also absent from mountains with a maximum altitude over 2000 metres. The model thus suggested that colonies were most likely in low hills and small mountain ranges, or on the edge of the Tien Shan Mountains, between 1000 and 2000 metres. The model however, could not predict the presence of colonies within cliffs along rivers.

Table 4. Predicted Lesser Kestrel *Falco naumanni* (LK) population size from an altitude model.

100-km square	MAXALT* between 1000–2000 metres	Predicted LK population**
DJ	55	660
DK	0	0
EJ	40	480
EK	0	0
EL	0	0
EM	0	0
FJ	5	60
FK	10	120
FL	0	0
FM	0	0
GJ	15	180
GK	20	240
GL	0	0
GM	0	0
KP	15	180
KQ	25	300
KR	5	60
LP	40	480
LQ	30	360
LR	25	300
LS	0	0
MR	30	360
MS	5	60
TOTAL	320	3 840

* MAXALT = number of 10-km squares with maximum altitude of 1000–2000 metres

** Extrapolation based on the mean recorded figure of 12 Lesser Kestrels/10-km square

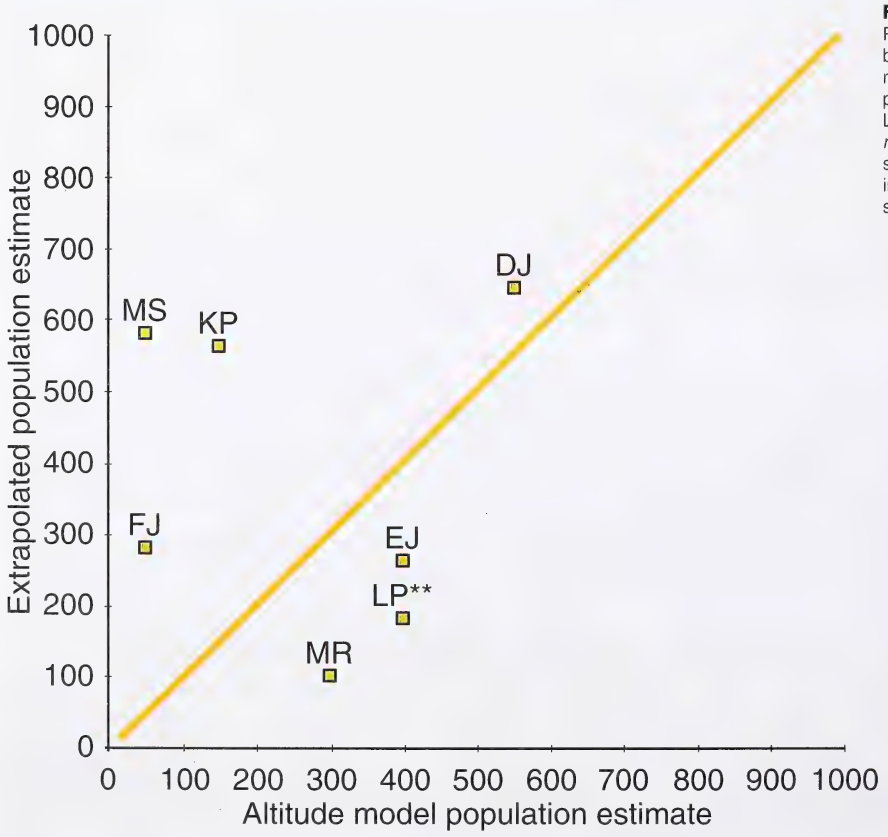
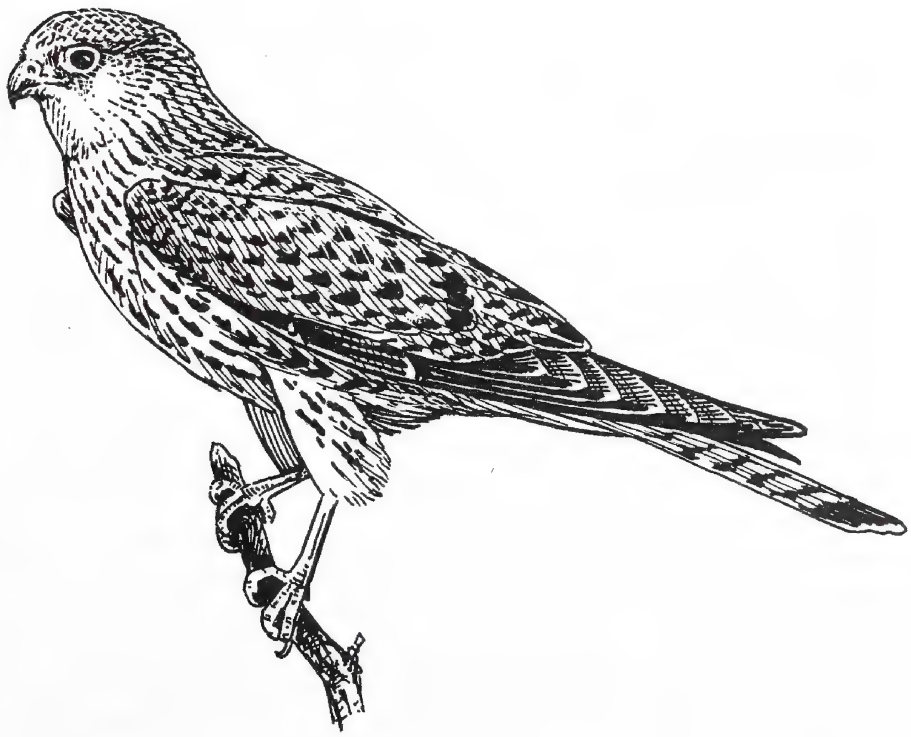


Figure 2. Relationship between altitude model and extrapolated estimates for Lesser Kestrel *Falco naumanni* population size. LP** was incompletely surveyed.

This model was used to predict Lesser Kestrel population size by using the mean colony size of 12 individuals/10-km square. This produced a total of 3840 individuals, or nearly 2000 pairs (Table 4). This was within the upper 95% confidence limits of the extrapolated population, which is reasonable given the lack of survey coverage in squares KR and LP, which held potential breeding habitats. However, close agreement did not exist between estimates for individual UTM squares, except for square DJ (Fig. 2). Square LP received incomplete coverage and contained potential breeding habitat as the altitude model correctly predicts. UTM squares FJ, KP and MS held large extrapolated populations but only contained small areas of suitable habitat, reflecting the small sample size from which the extrapolations were made.

DISCUSSION

Lesser Kestrel in south-east Kazakhstan is widely distributed on the edges of mountain ranges but absent from desert, sand-dune and wetland habitats. This is best explained by the need for cliff nest sites in either mountains or river valleys. The extrapolated population estimate was 1300 ± 750 pairs, compared to a model of presence related to the maximum altitude of a 10-km square, which predicted a population of c. 2000 pairs. The difference is probably due to the small sample of 10-km squares surveyed. The best means of identifying the presence of colonies would be to map all the available rock cliff and river cliff habitats and sample these for breeding Lesser Kestrel. In the absence of such maps, further sampling of land between 1000 and 2000 metres would be valuable to confirm the model and produce a better population estimate.



Lesser Kestrel *by Mike Langman*

If the number of pairs in two of the population concentrations identified by Zollinger & Hagemeijer (1994) held up to 2000 pairs, then the Kazakhstan population is perhaps only 5000–8000 pairs. Surveys of the other three areas identified by Zollinger & Hagemeijer (1994) would be valuable to confirm other population concentrations, increase baseline data and improve the model.

How far, geographically, the altitude model might be extrapolated, both within Kazakhstan and also west to the Ukraine and the Caucasus and east to north-east China where an isolated population occurs (Meyer de Schauensee 1984) is unknown.

Del Hoyo *et al.* (1994) do not suggest that breeding in buildings and natural cliff sites occurs in geographically isolated parts of the breeding range. However, data from south-east Kazakhstan, central Turkey (Parr *et al.* 1995) and Spain (Bustamente 1997, Forero *et al.* 1996) suggest that Lesser Kestrel either uses buildings or cliffs. This might reflect the distribution of suitable feeding habitats. In Spain and Turkey, Lesser Kestrel breeds in buildings and forages over dry grasslands and agricultural land in areas of flat topography (Donázar *et al.* 1993, Parr *et al.* 1995, Bustamente 1997, Parr *et al.* 1997). In south-east Kazakhstan, grass steppe habitats, over which hunting birds were most often observed, is restricted to areas close to mountain ranges above 1000 metres. However, hypotheses concerning nest-site selection and foraging preferences must also take account of the differing architecture and settlement density between the countries. In south-east Kazakhstan, no villages were observed with clay-tiled roofs as in central Turkey and much of Spain. Nearly all roofs were constructed from corrugated iron and did not appear to offer suitable nesting sites. Also settlement density in south-east Kazakhstan is far lower, and less than 100 years ago were almost entirely absent since the people were nomadic, than in central Turkey and hence cliff nest sites were the only sites available in many areas of south-east Kazakhstan.

The presence of such large areas of long-term and poor fallow land within the survey area provides a measure of the abandonment of agriculture, especially in marginal, upland habitats, following the collapse of the Soviet Union in 1991. The populations of other readily observed species, dependent on dry grasslands, such as larks, shrikes *Lanius* spp., European Bee-eater *Merops apiaster* and European Roller *Coracias garrulus*, were also abundant and apparently non-threatened.

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Is Sardinian Warbler *Sylvia melanocephala* displacing Cyprus Warbler *S. melanothorax* in Cyprus?

DEREK POMEROY AND FRANK WALSH

During the 1990s, the endemic Cyprus Warbler *Sylvia melanothorax* declined in north-west Cyprus, where it is now uncommon in much of the Akamas peninsula. This has apparently coincided with the spread of Sardinian Warbler *Sylvia melanocephala*, which was first recorded breeding on Cyprus in the early 1990s; previously it was principally a winter visitor. Its spread, since then, has been relatively rapid, but there is no evidence, as yet, that the invasive Sardinian Warbler is the cause of the decline in Cyprus Warbler, although this appears probable, especially as they are closely related. As Cyprus Warbler is one of relatively few endemic species in Europe, its decline is of conservation concern.

ENDEMISM IS A NOTICEABLE FEATURE of the Cypriot avifauna, with two endemic breeding species—Cyprus Warbler *Sylvia melanothorax* and Cyprus Pied Wheatear *Oenanthe cypriaca*—and several subspecies. The endemic species are two of only three in the entire Mediterranean region (the other being Corsican Nuthatch *Sitta whiteheadi*). On Cyprus, both endemic species are common, widespread and migratory, although in the case of Cyprus Warbler, some—the proportion is unclear—overwinter on the island. Of those that migrate, some travel as far as northern Sudan (Cramp 1992, Flint & Stewart 1992). In contrast, the closely related Sardinian Warbler *S. melanocephala* was, until the early 1990s, considered to be solely a winter visitor to Cyprus, although its breeding range includes most of the Mediterranean (Cramp 1992, Flint & Stewart 1992).

Summer records of Sardinian Warbler date from 1903, but there were few such records until spring 1988, when a male was heard singing in north-west Cyprus (Flint & Stewart 1992). The first confirmed breeding was in 1994 (Frost 1994). Since then, breeding has been recorded annually, principally on the Akamas Peninsula (Frost 1996, Cozens & Stagg 1998, pers. obs.). As of 1999, there were still no breeding records from northern Cyprus (P. Flint pers. comm.).

Surveys of the two *Sylvia* species were made on the Akamas peninsula by members of the Royal Air Force Ornithological Society (RAFOS) in 1995 (Frost 1996) and, in greater detail, in 1997 (Cozens & Stagg 1998). In May–June 1998, we undertook surveys over a wider area, comprising 30 grid squares, each 5 km x 5 km, as part of a programme to contribute data to the planned Cyprus Breeding Bird Atlas (*Bird Census News* 8: 45, 1995). Within each grid square, we used 1 km^2 sample squares, each covering a defined habitat, such as a pine forest or vineyard. We made a number of one-hour bird counts (see below), as well as opportunistic observations at other times. One to three habitats were sampled in each atlas square.

HABITATS

We endeavoured to cover all of the important habitats in north-western Cyprus, except wetlands. We grouped them as 'natural' or 'agro-ecosystems' (see Pomeroy 1997), the latter covering a wide range from grasslands, through intensive agriculture around the small town of Polis to urban areas (where patches of agriculture and a

variety of fruit and other trees remain). 'Natural' ecosystems have, of course, been affected by 1000s of years of grazing and browsing by domestic stock, fires and other human activities, but the vegetation has not been ploughed and replaced by planted species. Many areas of natural vegetation are dominated by gymnosperms, especially pines (principally *Pinus brutia*) and juniper *Juniperus phoenicia*. However, the canopy cover of these species is often low; most 'forest' is better described as woodland. Between the pines and junipers are many smaller shrubs, typically spiny species of the maquis, such as *Pistacia terebinthus* and *P. lentiscus*. Native plants also predominate many of the narrow, rocky gorges and, increasingly, on rocky hillsides. The latter are terraced in many places, but these are increasingly being abandoned, permitting varying degrees of natural regeneration, with woody species such as oaks *Quercus* spp. and hawthorns *Crataegus azarolus* locally prominent.

METHODS

One-hour Timed Species Counts (TSCs) were used as the standard method of obtaining estimates of relative abundance (Pomeroy 1997). A total of 146 counts was made in 24 grid squares during five weeks; in addition, some data were included from the 64 counts in six grid squares made in 1997.

In each TSC, all species seen or heard in a particular habitat (and usually within a single 1 km^2) were noted in the order they were recorded. The time was noted alongside the growing list at ten-minute intervals. Species recorded in the first ten minutes were scored six; those noted in the next ten minutes, five, and so on to a score of one for the final ten minutes. Mean scores for each species provide a simple but reliable indication of the birds' relative abundance, although conspicuous species tend to score more highly, as with most census methods (Pomeroy & Dranzoa 1997).

In addition, following the experience of the first two days, we counted each individual *Sylvia* warbler that was positively identified during each one-hour TSC; this generated a mean recording rate for each species at each site. Identification based solely on song or call was difficult: although 'typical' songs, and especially calls, are different for the two species, there was so much variation in length, proportion of harsh notes and other features that vocalisation alone was not used. Once a bird had been seen and positively identified (which required reasonably good views), we counted any nearby bird singing in response to the one seen.

RESULTS

Fig. 1 indicates the numbers of both *Sylvia* species counted at 21 sites in the Akamas and Laona areas, and in nine Paphos Forest sites. The numbers of one-hour counts in each sample square varied from 2–7, so the most useful information is the proportions of the two species. Within the shaded areas, Sardinian Warbler constituted more than half. Sardinian Warbler was only found at one site in Paphos Forest (*h*).

Fig. 2 demonstrates the relative abundance of both species in all of the sampled habitats. Sardinian Warbler was more numerous in all areas with natural vegetation, except those with only pines, and in gorges and valleys. Within these areas, Sardinian Warbler was particularly numerous at coastal sites below 100 metres, and absent above 700 metres (Fig. 2) (although it occurs up to 1700 metres on Crete, Watson 1964). Cyprus Warbler predominated at most other sites with natural vegetation (including those that were regenerating), and at almost all sites in agro-ecosystems. It was often common at sites up to 600 metres. Above this altitude, it was generally more sparsely distributed, and was not recorded at any of the four sites above 950 metres, although elsewhere on the island it has been recorded breeding up to c. 1400

Figure 1. Numbers of *Sylvia* warblers counted at 21 sites in the Akamas–Laona area and nine in Paphos Forest in May–June 1998. The code for each site (*A, B, KT, a,* etc) appears above the numbers expressed as Cyprus : Sardinian. The former predominates within counted areas, except those shaded (area 'S' is referred to in the text). At site j in Paphos Forest, the presence of Cyprus Warbler was unconfirmed, hence the parentheses. Marginal figures are UTM grids.

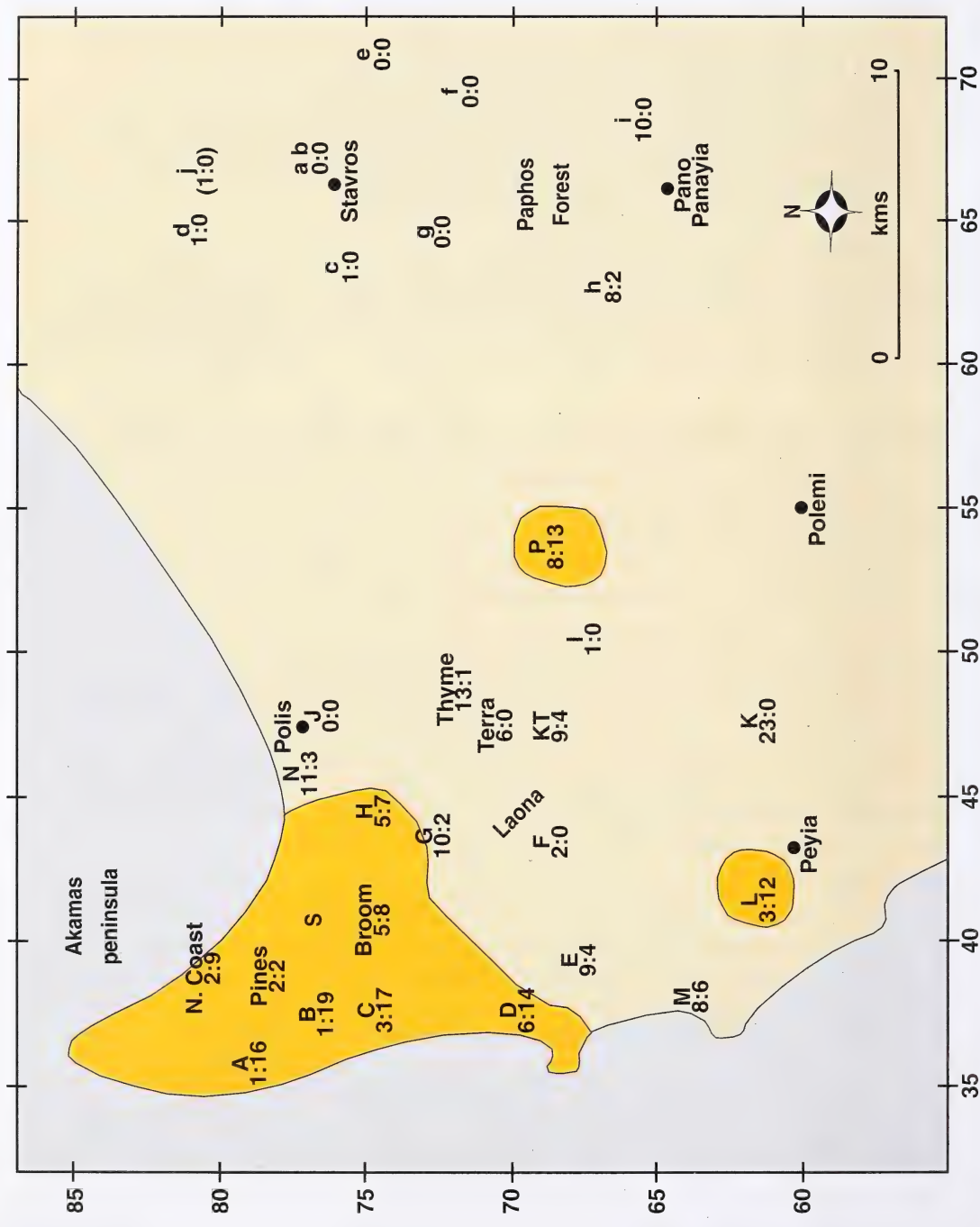

Figure 2 (opposite). Reporting rates of Cyprus *Sylvia melanothorax* and Sardinian Warblers *S. melanocephala* (confirmed identifications per hour) at 33 sites in north-west Cyprus. Where two or more sites had similar habitats at similar altitudes, mean values are plotted. There were also two sites at Kritou Terra (*KT**). For each site, or group of sites, the base of the histogram records the altitude. All data are for May–June 1998.

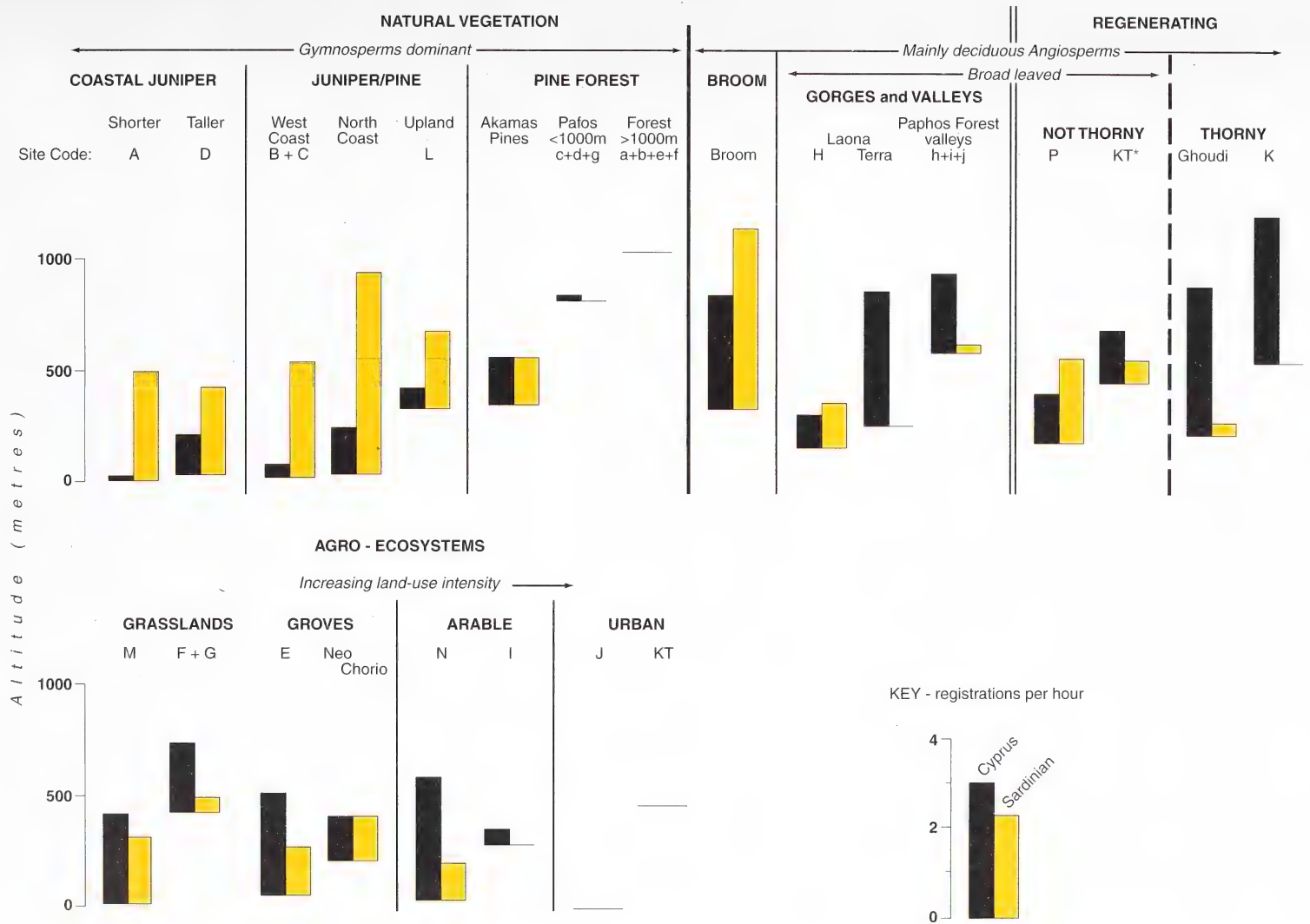
NATURAL VEGETATION
Gymnosperms dominant
COASTAL JUNIPER
Shorter
Taller
Site Code:
A
D
JUNIPER/PINE
West Coast
North Coast
Upland
B + C
L
PINE FOREST
Akamas Pines
Pafos <1000m
Forest >1000m
c+d+g
a+b+e+f
BROOM
Broom
REGENERATING
Mainly deciduous Angiosperms
Broad leaved
GORGES and VALLEYS
Laona
Paphos Forest valleys
H
Terra
h+i+j
NOT THORNY
P
KT*
THORNY
Ghoudi
K
Altitude (metres)
1000
500
0
AGRO - ECOSYSTEMS
Increasing land-use intensity
GRASSLANDS
M
F + G
GROVES
E
Neo
Chorio
ARABLE
N
I
URBAN
J
KT
KEY - registrations per hour
4
2
0
Cyprus
Sardinian

Table 1. Mean TSC scores for nine sites with data in both 1997 and 1998. Site names correspond to Fig. 2; *n* is the number of one-hour counts per site (this varies because the counts were primarily intended for atlas work).

Site	1997 n	1997 Cyprus	1997 Sardinian	1998 n	1998 Cyprus	1998 Sardinian
Natural vegetation						
Broom	6	4.0	2.8	2	4.5	6.0
North coast	6	2.8	4.0	2	5.5	5.0
Akamas Pines	6	2.0	2.8	2	2.0	1.0
Terra gorge	6	3.2	0.5	2	5.5	0.0
Mean		*3.0*	*2.5*		*4.4*	*3.0*
Agro-ecosystems						
Carob/olive grove	4	2.5	1.3	2	1.5	2.0
Ghoudi Thyme	6	6.0	1.2	4	6.0	1.3
KT Hillsides	6	5.5	0.0	4	2.3	1.8
KT Burnt	4	2.8	0.0	4	3.5	0.3
Ghoudi arable/orchard	8	3.9	0.6	2	3.0	3.0
Mean		*4.1*	*0.6*		*3.3*	*1.7*

metres (Flint & Stewart 1992). Differences in the habitat preferences of the two species are probably more important than altitudinal effects, which are largely confounded by geographical factors—Sardinian Warbler is only common in north-west Cyprus; most of the Laona and Akamas area is below 600 metres.

Changes with time

The 1998 data suggest that Sardinian Warbler is spreading into new areas, for example near Evretou, although breeding near Pana Panagia was first reported in c. 1996 (I. Savvas pers. comm.). Firmer evidence of its spread should come from repeat visits and counts.

TSCs were made at nine sites in 1997 and 1998 (Table 1). In areas with natural vegetation, both species increased, although not significantly (Mann-Whitney U-test, $P > 0.1$). However, in the various agro-ecosystems, Sardinian Warbler increased while Cyprus Warbler declined, and in this case the recorded increase in Sardinian Warbler is unlikely to have been due to chance (for a two-tailed Mann-Whitney test, $0.05 < P < 0.1$).

DISCUSSION

Sardinian Warbler has been extending its breeding range in the Mediterranean area for some time (Cramp 1992). In the Aegean, the species is 'the commonest and most widespread of all the macchia warblers' (Watson 1964). Thus, its recent breeding on Cyprus is no real surprise; indeed, it may not even constitute a geographic spread, merely a change in temporal distribution patterns. However, the subspecific identity of Sardinian Warblers breeding in Cyprus is uncertain (Frost 1996), making it impossible to be certain whether separate wintering and breeding populations are involved, or whether the species is now represented on the island by a single resident population.

Until c. 1996, the only breeding records of Sardinians on Cyprus outside the Akamas peninsula were two cases of possible breeding at Episkopi, c. 50 km to the south-east (Frost 1996). Now, however, it breeds at all sites censused in the Laona highlands and some adjacent areas, east to Pana Panagia.

Numbers involved are, currently, difficult to assess. Frost (1996) considered that, in 1995, there were at least 50 pairs of Sardinian Warbler 'holding territory on the [Akamas] peninsula', and 8–10 of Cyprus Warbler. However, in 1998 at least, the numbers were much higher. The mean TSC scores for Sardinian and Cyprus Warblers for the seven sites within the c. 80 km^2 'S' area of the Akamas peninsula (Fig. 1) were 4.0 and 1.9. From studies performed in Africa (Pomeroy & Dranzoa 1997) these would correspond, approximately, to densities of 0.4 and 0.2 birds ha^{-1}. On this basis, the total populations in Akamas appear likely to be several thousand Sardinian Warbler and

possibly 1000 Cyprus Warbler. Even these figures may represent underestimates, as it is not uncommon to hear 2–3 singing males within 100 metres, suggesting local densities greater than one bird per ha.

Of individuals of these two species caught on the Akamas peninsula in 1995 (Frost 1996) and 1997 (Cozens & Stagg 1998), only c. 10% of 150 and 118 birds were Cyprus Warbler. However, of survey counts in 1997, 22% of more than 200 birds were Cyprus Warbler. Similarly, our totals for the 'S' area were 19 and 78, i.e. nearly 20% were Cyprus Warbler. This may simply reflect more arrivals of Cyprus Warblers in April–May, when Frost and Cozens were mist-netting, and late May to mid-June, when we were counting. Both species were breeding during our counts, whereas only a small proportion of the mist-netted Cyprus Warbler showed signs of breeding.

There is no definite evidence that the spread of Sardinian Warbler has been at the expense of Cyprus Warbler. There is considerable overlap in habitat preference between the two species (Fig. 2) and they often occur sympatrically. However, as might be expected of an island form, the range of habitats of Cyprus Warbler appears to be broader. Sardinian Warbler is the most widely distributed of all *Sylvia* species within the Mediterranean region, where it has a wide habitat range (Cramp 1992). The decline in numbers of Cyprus Warbler in 1997–1998 was negligible, even in favoured habitats of Sardinian Warbler (Table 1), but it is quite feasible that the spread of Sardinian Warbler will result in a decline of Cyprus Warbler in areas favoured by the former. Male Sardinian Warbler is significantly heavier than male Cyprus Warbler (Cozens *et al.* 2000) and this could provide an advantage. Data over a longer period are clearly desirable, and could indicate a different picture. Because it is confined to Europe, Cyprus Warbler is a SPEC 4 (Species of [European] Conservation Concern, Tucker & Heath 1994) and it is important to monitor its status. An encouraging fact is that Cyprus Warbler appears to succeed in areas with regenerating vegetation (Fig. 2), principally steep rocky hillsides, a habitat that is apparently increasing, and which scores highly for birds of conservation value in general (Pomeroy 1997).

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Range expansion and current breeding distribution of River Warbler *Locustella fluviatilis* in Bulgaria

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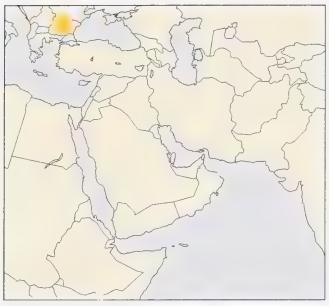


River Warbler *Locustella fluviatilis* has rapidly expanded its range southward to include the whole of Bulgaria: 828 individuals have been recorded at 34 localities since the first record—in 1959—by 1996. Dramatic expansion has taken place since 1978. The present boundary of its breeding range in south-east Europe probably reaches Greece and European Turkey. The species is principally found in marshy habitats in Bulgaria. It has rather prolonged migration and breeding seasons. In early springs, the first birds can arrive as early as 12 February. The main spring passage is in April–May, when 46% of individuals was recorded. Approximately 60 pairs breed in Bulgaria, some of which raise two broods. Autumn migration is in July–September, with only singles recorded beyond October, although the latest date is 9 December. A River Warbler ringed in Hungary was caught in Bulgaria. It had travelled 609 km in 11 days in a south-easterly direction.

INTRODUCTION

RIVER WARBLER HAS RAPIDLY EXPANDED its range in Bulgaria during recent decades, mirroring increases elsewhere in Eurasia, where its range now extends from Denmark and Germany to the upper course of the River Ob in northern Kazakhstan; in Sweden and Finland it reaches 64°N (Cramp 1992). It has been suggested that, in Germany during the present expansion, River Warbler has recolonised areas deserted in the early 20th century (Schönn & Schönn 1987).

The species was first recorded in Bulgaria by Mauersberger (1960), who heard one singing near the Zlatni Pyasaci resort, near Varna, on 23 May 1959. Subsequently, an adult male probably killed by overhead wires, was found in Ruse on 16 April 1960 (Paspaleva-Antonova 1961, Donchev & Undjian 1961). Since 1960, observations of River Warblers in Bulgaria have been more frequent.

MATERIALS AND METHODS

Most material presented here was collected at field stations of the Bulgarian Ornithological Centre, especially at the Lake Atanasovsko, where regular ringing and census work were performed. Many new localities for the species in other parts of the country were also recorded.

RESULTS AND DISCUSSION

In total 828 River Warblers have been recorded at 34 sites in Bulgaria during the 38 years, 1959–1996 (Fig. 1 and 2a). It has now colonised many suitable areas of the country, especially along the coast and in river valleys. Although elsewhere it is a rather eurytopic species, in Bulgaria it is more characteristic of marshy places, overgrown with reeds, than of forests. It prefers drier areas among marsh vegetation, where it can easily run on the ground. It inhabits lakes and marshes with reed and wooded banks, overgrown fishponds, narrow coastal woods and parks with dense undergrowth, and prefers wet meadows with tall grass, shrubs and isolated trees. It is also found beside sand pits and ponds overgrown with reeds, on grassy channels or small reservoirs and in marshy areas along roads and railway lines. The southernmost limit of its breeding distribution in south-east Europe is probably to the south of

Figure 1. Distribution of River Warbler *Locustella fluviatilis* observations in Bulgaria, 1959–1996. 1 = Rupite ornithological station. 2 = Rila. 3 = Studena. 4 = Sofia. 5 = Vranya Royal Palace. 6 = Chelopechene fish ponds. 7 = Dolni Bogrov. 8 = Kremikovsi. 9 = Petarch fish ponds. 10 = Belogradxhik. 11 = Belene Island. 12 = Mechka fish ponds. 13 = Rusenski Zom. 14 = Ruse. 15 = Nova Cherna. 16 = Garvan marsh. 17 = Lake Srebarna. 18 = Lake Durankulak. 19 = Lake Shabla. 20 = Cape Kaliakra. 21 = Kranevo. 22 = Zlatni pyasaci. 23 = Pomorie. 24 = Lake Atanasovsko ornithological station. 25 = Burgas. 26 = Lake Vaya. 27 = Poda. 28 = Veleka. 29 = Karnobat. 30 = Kazanlak. 31 = Lesovo. 32 = Krumovgrad. 33 = Tskra. 34 = Trivodisi. The map is based on published observations—e.g. Mauersberger (1960), Donchev & Undjian (1961), Donchev (1964), Prostov (1964), Ferianc *et al.* (1965), Michev (1968), Peshev (1971), Nankinov & Darakchiev (1977), Nankinov (1982), Robel *et al.* (1978), Schubert & Schubert (1982), Michev & Vatev (1983), Todorov (1983), Dittberner & Dittberner (1986)—and observations of the Bulgarian Ornithological Centre.

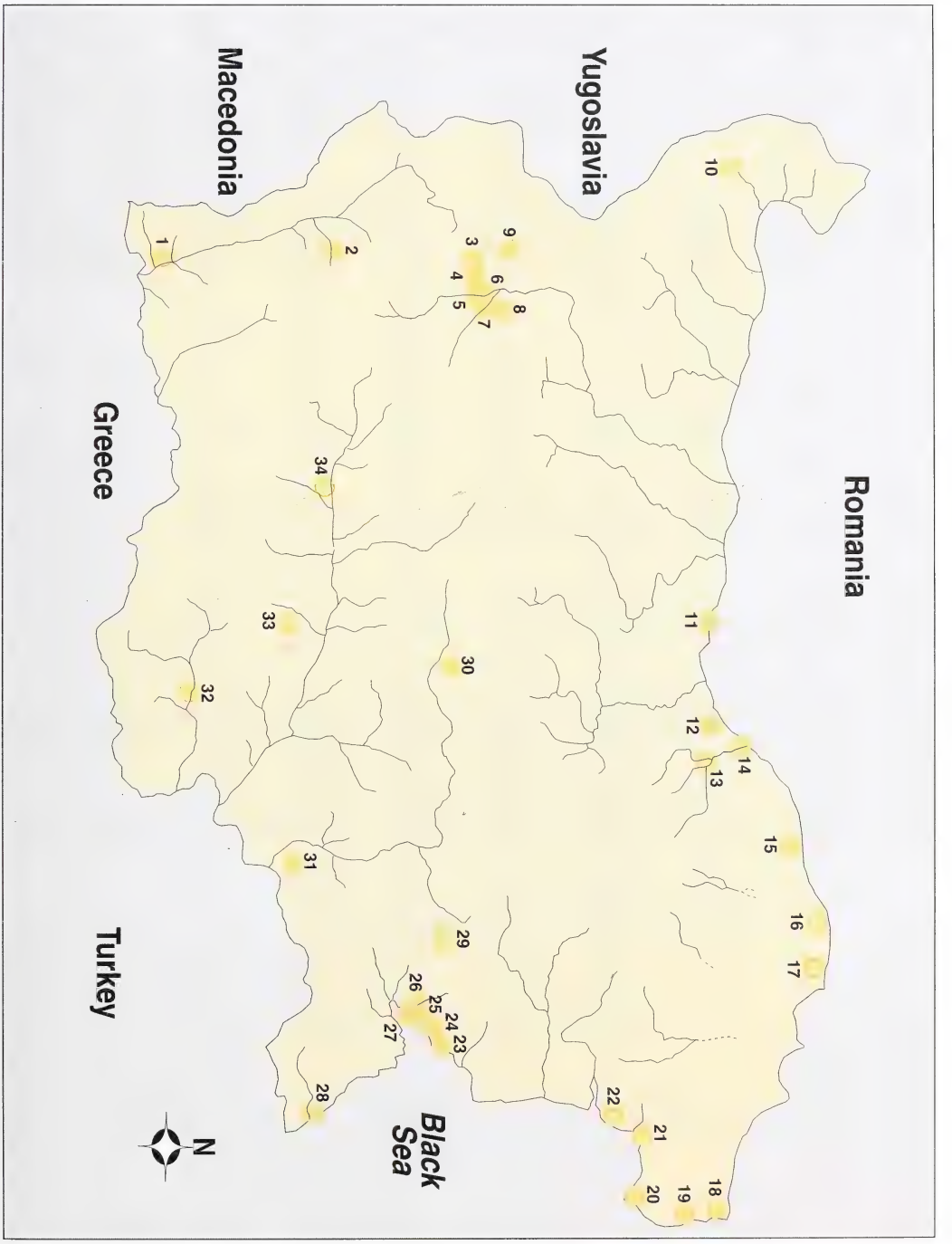
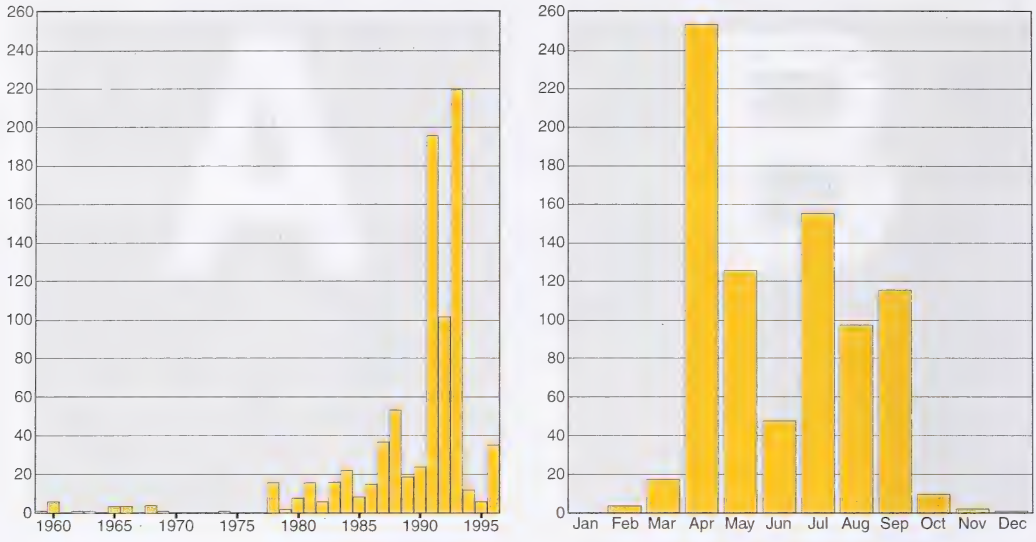


Figure 2. Annual (part a) and monthly (part b) breakdown of River Warbler *Locustella fluviatilis* observations in Bulgaria, 1959–1996.



Bulgaria, perhaps in European Turkey and northern Greece, although there have been no confirmed breeding records from either country (Handrinos & Akriotis 1997, Kirwan *et al.* 1999).

The principal expansion of its range in Bulgaria has occurred since 1978 and most individuals were observed in the period 1991–1993. The apparent decrease in numbers since 1993 (Fig. 2a) has been due to the impossibility of performing regular fieldwork, because of the economic crash in the country, and is almost certainly not due to a genuine decline in River Warbler numbers or because colonisation has faltered.

SPRING MIGRATION

River Warbler migration through Bulgaria is relatively extended in comparison to parts of northern Europe. In years with warm and early springs, e.g. 1988, the first birds appeared on the Black Sea coast in mid-February. Two River Warblers were singing on 12 February 1988 near Lake Atanasovsko field station and another was heard there on 28 February. Numbers increase slightly in March, but it is suspected that the majority of such early individuals are in transit to breeding areas further north. The bulk of the spring passage proceeds in April–May (Fig 2b). Concentrations occur in April at Lake Atanasovsko: 20 singing males on 10 April 1992 and 15–25 singing males on 18–21 April 1993.

Table 1. Maximum number of pairs of River Warbler *Locustella fluviatilis* recorded at sites in Bulgaria in the late 1980s and early 1990s.

Site	Max. number of pairs	Year
Lake Atanasovsko	11	1988
Belene Island	10	1993
Lake Durankulak	10	1992
Lake Shabla	6	1991
Nova Cherna fish ponds near Silistra	6	1994
Trivodici fish ponds near Plovdiv	c. 5	1990
Lake Srebarna	<4	
Lake Vaya	<4	
Mechka fish ponds near Ruse	<4	
Total	c.60	

BREEDING

Six per cent of River Warblers recorded in the course of the year remain in Bulgaria during the breeding period (June). It is estimated that c. 60 pairs nested annually in Bulgaria during the early 1990s (see Table 1).

Mitchev & Vatev (1983) discovered the first Bulgarian nest of the species on 1 July 1980 at Garvan Marsh. It was located among reeds *Phragmites communis*, reedmace (*Typha* sp., sedge *Carex* sp. and *Amorpha fruticosa*, and was 10 cm above the ground. The nest was empty and, according to the authors, it was ready to receive eggs. It consisted of two layers: an internal one constructed of dry reedmace leaves and an external layer of elder *Sambucus* sp. Another nest of the same structure and location, but probably from the previous year, was found 10 metres from the first.

Pairs nest semi-colonially in groups of up to five at a distance of 50–100 metres from each other. Thus, suitable habitat is only partially occupied. Based on the brood patch of trapped adults, the eggs hatch in late May–June. It is likely that two broods are attempted in Bulgaria, as their buzzing song is heard from their arrival until August. Recently fledged young have been observed (and caught in nests) from 2 July (1986), 11 July (1988) and 13 July (1991). Dittberner & Dittberner (1986, 1987) established that it is principally the female that broods and feeds the young. The male protects the nest and broods only prior to the eggs hatching. Young leave the nest at 13–14 days, still unable to fly well. Once capable of strong flight (by days 15–18) they soon leave the vicinity of the nest, and by day 28 can be up to 1 km away from where they hatched. Once the young fledge the female leaves the nest site, followed by the male. Away from breeding areas, River Warblers are recorded in arable fields, pasture, orchards and uncultivated farmland in July–September.

AUTUMN MIGRATION

Autumn migration is prolonged, probably due to the second brood. It is most obvious in July–September (19%, 12% and 14% of individuals recorded annually). Concentrations are witnessed on the Black Sea coast, e.g. ten at Cape Kaliakra on 9–10 September (Dittberner & Dittberner 1986) and ten at Lake Atanasovsko on 1 September 1993. Young from the two broods of the Bulgarian population probably leave the country in late July–early August and late August–early September. Migration decreases in October. Singles, probably late migrants from further north, appear in Bulgaria in November–early December, with the latest record being one ringed on 9 December 1978, near Karnobat.

The work of the Bulgarian Ornithological Centre has demonstrated that, in years with favourable weather conditions, some River Warblers reach the eastern Mediterranean and south-east Europe very early in spring, essentially still in late winter, and do not depart until early winter. Ptushenko (1954) suggested that some, at least formerly, wintered in the Caucasus, but this appears erroneous, as wintering has otherwise not been recorded north of southern Africa (Cramp 1992).

Ringing recoveries for the species are comparatively few, thus it is relevant to note that an immature River Warbler, ringed on 30 August 1992 in the Osca alder forest, south of Budapest, Hungary, was caught on 10 September 1992 in the grounds of the Vranya Royal Palace, near Sofia. The bird had travelled 609 km in a south-easterly direction in 11 days.

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The status of Great Bustard *Otis tarda* in Iran

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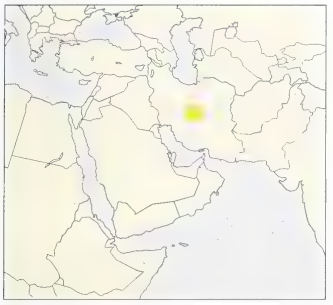

Surveys of Great Bustard *Otis tarda* in Iran in 1990–1994 located birds at 21 sites in the west of the country. Areas of east and north-east Iran known to hold a wintering population of 200–250 birds in the late 1970s were not occupied during this period. Numbers in west Iran appear stable at 60 breeding females and 200–300 birds in winter, when numbers are augmented by immigrants from the former Soviet Union states. Three nests were found during the survey and data were collected on food and foraging, potential threats and possible conservation action.

GREAT BUSTARD *Otis tarda* is a globally threatened species classified as vulnerable (Collar *et al.* 1994). In Iran, the species occurs in the west of the country, from the northern provinces to Kermanshah in the centre-west. Habitat destruction and hunting have caused a sharp decline in recent decades. The Department of the Environment (DOE) declared the Great Bustard a protected species in 1967, banning hunting throughout Iran. Following the introduction of strict hunting controls and conservation measures by the DOE in recent years, the Great Bustard population is now stable.

In 1971–1978, several surveys were undertaken by the DOE: Scott (1971) estimated 40–100 breeding females in west Iran; A. Eftekhar found 123 birds wintering in east and north-east Iran in 1973; Razdan & Mansoori (1989) 124 wintering in east Iran in 1976; Cornwallis (1983) and E. Kahrom estimated just 40 breeding females in west Iran in 1977; but Kahrom (1979), in an aerial survey in 1978, estimated c. 80–120 breeding females in the same area and c. 200–250 winter visitors in the east and north-east of the country. The present study (1990–1994) visited most potential Great Bustard habitats in Iran, and therefore, attempts a more complete appraisal of the current status of the species in the country.

METHODS

Great Bustard is known from six provinces in Iran. In undertaking the present survey, a biologist and several game guards in each province assisted me by making weekly visits to the most important sites. In addition, I made monthly trips to each of these areas. Each site was covered twice on each visit: once in early morning and once in late afternoon, when the birds are most active. Nests were discovered by careful observation of females. All population estimates were made on the basis of direct censuses, using line transects and roadside counts with binoculars and a telescope. No aerial surveys were made. A fresh corpse, probably killed by a predator, was analysed and the contents of its crop sent to the Bou-Ali university laboratory to determine its diet.

DISTRIBUTION, MIGRATION AND POPULATION

The species occurs in large areas of undulating steppe, most of which is cultivated in the west of the country (34°12′–37°58′N and 45°00′–48°07′E), at 500–2100 metres above sea-level (Map 1). Previous studies had demonstrated that Great Bustard occurred in the west, east and north-east of the country. In undertaking this project, I concentrated on those areas that were known to be most important.

1. east and north-east Iran

Known wintering area. The birds probably originate from breeding areas in the former Soviet Union. They arrive in December and depart in March. I and my colleagues were unable to find any birds, although a population of 200–250 wintered in these areas in the 1970s.

2. west Iran

Twenty-one suitable areas in five provinces were identified: seven in west Azerbaijan, one in east Azerbaijan, five in Kordestan, seven in Kermanshah, and one in Hamadan province. A small number survive in a handful of additional areas omitted from the present survey due to their physical remoteness. In some areas, the species is resident, but only ten are suitable for breeding. In severe winters, some move south to e.g. the low-lying plains of Zohab and Gandomban, in Kermanshah. It is probable that some also move to adjacent areas in Iraq and Syria.

The most important areas, supporting the largest population are in west Azerbaijan and Kordestan: Sootav plain, Behie-e-Bukan, Zarrineh-Oubatoo and Ghareh-Gheshlagh prohibited hunting region.

Winter visitors from adjacent countries arrive in September. It is estimated that there at least 60 breeding females in west Iran. The wintering population is c. 200–300 birds. Although the size of the winter population fluctuates, it appears that numbers in west Iran have remained virtually stable since 1970.

Previous surveys, prior to 1978, found 12 localities in the west of the country for Great Bustard. A total of 21 areas with populations of the species was located as a result of the present survey, but five of the original 12 sites certainly no longer hold birds and at another four important sites, the populations have decreased sharply.

Most of the localities held birds in autumn and eight probably only held passage birds. Breeding birds were located in ten areas and two new wintering sites were discovered.

Table 1. Maximum numbers of Great Bustard *Otis tarda* in eight survey areas. 0 = no birds found; - = no survey; W = winter; S = spring; SU = summer; A = autumn.

	1990			1991				1992				1993				1994	
	w	s	su	a	w	s	su	a	w	s	su	a	w	s	su	a	w
Asad-abad	-	13	0	13	21	2	0	2	0	0	0	5	7	0	0	1	10
prohibited hunting region	-	-	0	6	-	4	0	32	0	0	0	7	6	0	0	3	8
34°47'N 48°07'E	12	2	-	16	6	1	0	21	0	0	0	7	2	0	0	13	12
Ghareh Gheshlagh	62	-	-	-	-	41	-	10	-	-	4	7	6	-	0	-	48
prohibited hunting region	-	-	0	15	-	-	0	-	-	4	-	8	-	2	-	17	73
37°07'N 45°52'E	-	0	-	35	13	2	-	47	-	0	7	-	0	2	-	27	-
Zarrineh obatou plain	0	0	-	-	0	0	2	38	0	0	-	-0	0	-	-	0	
36°04'N 47°00'E	0	-	11	-	0	-	0	18	0	-	-	34	0	3	0	28	0
	0	2	18	13	0	3	-	0	0	3	-	0	0	-	-	0	0
Chehar douli-Gorveh	-	-	2	4	0	11	0	-	0	5	0	0	0	3	0	0	0
prohibited hunting region	5	-	-	6	0	5	0	1	0	5	0	0	0	0	0	0	0
35°05'N 48°00'E	0	-	-	3	0	1	0	11	0	-	0	0	0	0	0	0	0
Akhtachi region	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36°50'N 46°00'E	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-
	-	-	-	-	8	-	-	-	-	-	-	8	-	-	-	-	-
Sootav plain	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36°35'N 46°10'E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8
	-	-	-	-	-	-	-	-	-	-	-	-	-	12	-	-	60
Nazloo region	-	-	-	-	-	-	-	-	-	-	0	-	0	6	4	-	-
37°46'N 45°12'E	-	6	-	-	-	-	-	-	-	-	4	0	4	3	4	3	
	-	-	-	-	-	-	-	-	-	-	6	-	0	4	-	0	0
Behi-e-Bookan region	-	-	-	-	-	-	0	-	-	-	-	10	-	-	-	-	-
36°42'N 46°15'E	-	-	-	-	-	4	-	-	-	-	-	28	-	15	-	-	-
	-	-	-	-	-	0	-	11	-	-	-	-	-	12	-	11	-

BREEDING

In west Iran, the species breeds in remote cultivated areas subject to little disturbance. Wheat is the main crop, but pea, barley, alfalfa and sunflower are also grown. Nests are usually placed in dry wheat fields. During the survey, three nests were found in 1993: one contained three eggs, another two eggs and a shell, and the third had two eggs.

Egg colour was pale olive to pale brown with some dark brown spots. Size and weight of the eggs are given in Table 2. These data accord with those presented in Schönwetter (1967) and Cramp & Simmons (1980).

Table 2. Sizes and weights of five Great Bustard *Otis tarda* eggs found in 1993.

Eggs	1	2	3	4	5	mean
weight (g)	200	170	130	130.5	120	150.1
length (mm)	81	81	81	79	78	80
width (mm)	57	53	58	60	60	57.6

Display starts in March and the chicks fledge in August. In warmer regions egg-laying often commences in April, while in colder areas laying is considerably later, mainly in early June. Eggs are laid at one-or two-day intervals. Clutches are usually two, occasionally one or three eggs. Hatching in west Iran is in late May–early July. Table 3 demonstrates the relationship between egg-laying time and altitude above sea-level.

Table 3. Great Bustard *Otis tarda* nests and egg-laying chronology in 1993.

	site name	altitude (metres)	latitude	first visit	second visit	eggs laid
nest 1	Sootav plain	1470	36°34' N	3 eggs	3 eggs	early May
nest 2	Yazibalaghi	1640	36°21' N	2 eggs	2 eggs	early May
nest 3	Kalbaghi	1960	36°10' N	1 egg	2 eggs	late May

The elevation of the Zarrineh-Oubatoo plain is higher than other areas, and egg-laying consequently starts in June. In the low-lying Asad-Abad refuge, a 7–8-day-old chick was seen on 30 May 1990.

FOOD AND FORAGING

Great Bustards were observed feeding in crops such as wheat, barley, alfafa, pea and lentil. The crop of the dead bird, and several faeces were analysed. They contained some semi-digested grains of wheat and pea, as well as leaves of clover, alfalfa, and insects from the orders *Coleoptera* (including some species of *Chrysomelidae*) and *Orthoptera*. Food intake is diverse. In summer, mainly in the breeding season, food consisted of terrestrial insects and insect larvae, especially grasshoppers, field-crickets, mole-crickets and beetles. Mice and lizards were also taken during field observations. In winter, birds usually feed from early morning until 11.00, but morning feeding commences and finishes earlier in summer. While feeding, Great Bustards remain vigilant. During the hottest part of the day, birds rest behind a bush or stone, foraging again in the late afternoon until dusk.

LIMITING FACTORS

Disturbance at breeding sites comes from local farmers. In addition to predation and human disturbance, the main threats are as follows.

Plate 1. Great Bustard *Otis tarda* nest and eggs, Yazibalaghi region, May 1993. (*Hamid Amini-Tareh*)

Plate 2. Female Great Bustard *Otis tarda* escaping from nest, Kalbaghi region, May 1993. (*Hamid Amini-Tareh*)

Plate 3. Great Bustard *Otis tarda*, Zarrineh Obatou Plain, autumn 1993. (*Hamid Amini-Tareh*)

Illegal hunting

The DOE has declared hunting of Great Bustards prohibited, but the inadequate number of game wardens and the huge areas involved make it very difficult to strictly control illegal hunting. Poachers may be fined c. US$6000 and/or sentenced to between three months and three years imprisonment.

Egg and nest destruction

In spring, the nests and eggs are occasionally destroyed by local people searching for edible plants such as *Tragopagon graminifolium* and *Gundelia* spp. Agricultural machinery is responsible for the loss of chicks and eggs in some European countries. As the harvest is practiced in Iran before fledgling, some chicks may be captured and destroyed by harvesting machinery drivers and local people.

Habitat destruction

In recent decades industrial development has increased to the detriment of traditionally farmed lands and the use of agricultural machinery, fertilizers, herbicides and pesticides has increased enormously. Much arable land, previously suitable for Great Bustard, has been irrigated and is under intensive cultivation, which has had an adverse effect on Great Bustard populations. Asad-abad and Chehardouli prohibited hunting areas are now heavily cultivated and Great Bustard may be extinct at Chehardouli and subject to a significant decline in numbers at Asad-abad.

CONCLUSIONS AND RECOMMENDATION

Some important Great Bustard localities have been declared protected areas, by the DOE, in recent decades. There are several other suitable sites which require further protection, and it is hoped that the DOE can bring these under direct protection by employing game guards in these areas. Great Bustard is very sensitive to disturbance. Repeated visits by local people to breeding areas may cause the birds to desert. Most Great Bustard localities are privately owned. In order to prevent habitat degradation and disturbance, I recommend that the DOE purchases suitable Great Bustard areas

and manage them for the species. Further DOE surveys of Great Bustard and other threatened species are planned. In addition, an education project is required to inform local people of the need to protect the species. The DOE is interested in collaborating with outside bodies to achieve these objectives.

ACKNOWLEDGEMENTS

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PHOTO spot

Dead Sea Sparrow in Turkey

Dead Sea Sparrow *Passer moabiticus* is one of a number of attractive members of its genus found in the Middle East. Here, the status of the species in Turkey is discussed. It is a locally common summer visitor, or perhaps resident in small numbers at a number of localities in the lowlands of the Mediterranean region and South-east Anatolia, and was also reported (formerly?) at one locality in East Anatolia. The species typically breeds in scrub by water, usually rivers or canals, between April and July in colonies of up to 100 birds. The Turkish population appears to rely on live trees for nesting, in contrast to some other populations (Summers-Smith 1988).

A breeding colony, now expanded to a series of colonies along the River Euphrates, was found at Birecik in 1964 (Kumerloeve 1965) and another at Gâvur Gölü, south of Maras in 1967 (Kumerloeve 1969). A further population was located at Ceylanpinar, on the banks of the Al Khabour, Şanliurfa province (South-east Anatolia) in 1968 (Kumerloeve 1969). Further discoveries followed from the Mediterranean region in 1968 and 1972 when colonies were located on the River Ceyhan, just south of Adana, in Çukurova (Cramp 1971) and in the Göksu Delta, where birds were also present in 1970, before breeding was proven in 1972 (OST 1975). In 1974 a colony was discovered, at Kale, Malatya province (East Anatolia) on the Euphrates, the only report from this region (OST 1978). However only those colonies at Birecik and on the Ceyhan are currently definitely known to exist. The relatively small population in the Göksu Delta appears to have been extirpated. Due to the difficulties of access to parts of South-east Anatolia there are no reports from any other areas, although the colony at Ceylanpinar is known to have increased between 1968 and 1977 (Kumerloeve 1978).

Summers-Smith (1988) suggested that the Turkish population represented an expansion of the species' breeding range from central Iraq and south-west Iran, a view supported by Roselaar (1995). However in a subsequent note (based on new evidence from Iraq), he surmised, probably correctly, that the lack of Turkish records prior to the 1960s was in part due more to an observational lacuna (Summers-Smith 1992). There was a lack of ornithological exploration in much of eastern Turkey, particularly the south-eastern parts before the advent of modern recording (1966). However some recent westwards expansion does appear to have taken place, as illustrated by the colonisation of Cyprus (Flint & Stewart 1992). As mentioned by Roselaar (1995) it is unclear, without knowledge of the subspecific identity of populations in the Mediterranean coast deltas, whether the current Turkish range is a result of a natural expansion westwards from the Euphrates through crossing the watershed north-west of Gaziantep.

Summers-Smith (1988, 1990) also discussed the wintering areas of this species. The small Cyprus population is apparently migratory and that in Israel undertakes at least partial dispersal. In Turkey there is one record outside the breeding season, at Tarsus, Içel province (Mediterranean) (OST 1972) and there are several recent early winter records (late November–December) from the Birecik area, suggesting small numbers overwinter, although this has yet to be confirmed. Recent records of large numbers wintering in eastern Arabia (Hirschfeld & Symens 1992) may indicate where the majority of the Turkish and / or Iraqi populations winter. The

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species' distribution and movements remain enigmatic, further research in Turkey, and elsewhere throughout its disjunct range, is needed to clarify our knowledge.

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Plate 1. Male Dead Sea Sparrow *Passer moabiticus*, Akrotiri Reedbeds, Cyprus, April 1984. (*Jeff Gordon*)

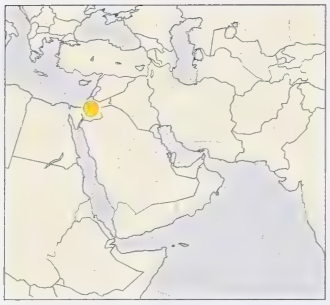
Plate 2. Male Dead Sea Sparrow *Passer moabiticus*, Israel. (*Paul Doherty*)

Plate 3. Female Dead Sea Sparrow *Passer moabiticus*, Eilat, Israel, December 1987. (*Paul Doherty*)

Plate 4 (left). Male Dead Sea Sparrow *Passer moabiticus*, Akrotiri Reedbeds, Cyprus, April 1984. (*Jeff Gordon*) **Plate 5 (above).** Female Dead Sea Sparrow *Passer moabiticus*, Akrotiri Reedbeds, Cyprus, April 1984. (*Jeff Gordon*)

The impact of drought conditions on the winter distribution and population of Syrian Serin *Serinus syricaus* in south-west Jordan

DR FARES KHOURY



Drought conditions in south-west Jordan in winter 1998–1999 had a severe impact on food abundance of Syrian Serin *Serinus syriacus* in winter, which adapted by changing its distribution within the Sharrah mountain range. The breeding population at Dana Nature Reserve 1999 had decreased by c. 20% since the most recent survey, in 1996, to max. 500 pairs. A few pairs bred at untraditional sites, where, nevertheless, abundant food resources and water springs were present.

INTRODUCTION

THE CLIMATE OF THE SOUTH-WEST JORDAN MOUNTAINS is Mediterranean semi-arid, with a mean annual rainfall of c. 320 mm (Shaubak meteorological station). The region is known for its high annual variation in precipitation rates, but it is very rare that total rainfall is below 40% of the annual mean. This was the case in winter 1998–1999, which was one of Jordan's driest winters of the 20th century, and additionally, followed two relatively dry years each totalling less than 75% of the mean annual precipitation. This impacted on the production of seeds by food plants of many bird species, including those of Syrian Serin *Serinus syriacus* and consequently on this species' distribution.

This report relates to *Serinus syriacus*, considered a key species for nature conservation in south-west Jordan. Surveys in this area, especially between Busseira and Petra, in January–May 1999 sought to determine the current status and threats to the *Serinus syriacus* population. Further information on the ecology of this species and on the study area have been published (Khoury 1998, in press).

WINTER DISTRIBUTION

Syrian Serin usually flocks in the non-breeding season, in winter principally in open *Artemisia* steppes with scattered trees and high shrubs (Khoury in press). *Artemisia* dwarf shrubs are widely distributed in south-west Jordan and produce abundant seeds in autumn and winter, representing the principal food resource of serins in this area in winter (Khoury 1998).

In winter 1998–1999, Syrian Serin was widely distributed throughout the south-west Jordan highlands, with foraging birds being relatively scattered and regularly observed in singles or small groups, with few larger flocks. This distribution differs from that observed in previous years when the species foraged within a more limited area and groups of 20–200 birds were more frequent. In winter 1998–1999 foraging serins concentrated where sufficient food, proximate water resources and extensive woodland, for roosting, were available. The main feeding areas were at Lahdha, in the north of Dana reserve (800–1300 metres), around Qadissiyah, south to Shaubak fort / Bir Khdad (1000–1600 metres) and Wadi Al-Hishi and upper Wadi Baidha, south of

Bir Khdad (900–1550 metres). Most birds apparently moved, on a daily basis, to Dana reserve to roost, except those south of Bir Khdad. These used oak woodland at Al-Hishi, the only other extensive woodland in south-west Jordan outside Dana reserve.

In previous years, serins concentrated in Wadi Es-Sidd and around Fujej-El-Badda-Wadi Bustan (700–1200 metres), as well as in Wadi Dana (350–800 metres), rarely moving as far south as Shaubak fort, the most southerly distribution being Mansura. Birds also moved daily to Dana reserve to roost. In January–February 1999 these areas were utilised only by small numbers of serins (daily max. five) as drought conditions decreased and / or delayed the production of seeds in some areas, while increased grazing affected *Artemisia* stands in other areas. The different distribution in winter 1998–1999, compared to 1995–1996, resulted from an unsuitable environment in the areas mentioned above, especially regarding food abundance and presence of water for drinking. In addition, the increase in grazing pressure, especially around Dana reserve and Qadissiyah, impacted food density. The local community at Qadissiyah is highly dependent on animal husbandry, and grazing pressure in this area was most intense on dwarf shrubs (e.g. *Artemisia*), as sheep and goats were unable to find the annuals they usually feed on following the first winter rain.

This survey also revealed a difference in altitudinal distribution. In winter 1998–1999, which was rather dry and lacked snow, serins were found throughout the period at high altitudes, principally 1000–1700 metres. In previous years, birds usually moved to lower altitudes following the first snow and were rarely observed above 1100 m beyond December (Khoury 1998). Due to the presence of alternative feeding sites at high altitudes, combined with the unusually mild winter, most birds from the local breeding population probably did not move to other regions as might be expected in such unfavourable conditions. The winter population in the Sharrah Highlands, in 1998–1999, was c. 800–1000 birds, corresponding with the number of estimated breeding pairs in 1999 (max. 500 pairs).

These observations reveal the significance of the entire Sharrah mountain range, especially from Busseira south to Petra, i.e. the importance of a much larger area, for the survival of the *Serinus syriacus* population in south-west Jordan than previously defined. The Sharrah mountains with their vast areas of *Artemisia* steppes around the extensive, open woodland of Dana reserve and Al-Hishi, offer many alternative feeding sites that can be used by serins in years when certain conditions, e.g. drought, force them to.

BREEDING POPULATION

In view of the drought and its impact on food and water availability at the traditional breeding site of Al-Barrah, Dana Nature Reserve (Khoury 1998), other areas within and outside the reserve were surveyed in order to explore the possibility of colonisation of new sites. In fact, no Syrian Serins were recorded in other areas of south-west Jordan (e.g. Hishi woodland) or northern Jordan (Mediterranean woodland) during the 1999 breeding season.

The breeding distribution at Dana in 1999 differed slightly from that in previous years (1996–1997). The majority of breeding pairs was observed in Al-Barrah, but a few scattered pairs bred in open woodland around the Dana orchards and at Jebel Sarab, just outside Dana Nature Reserve. These were in apparently sub-optimal habitats that, nevertheless, were near permanent water and orchards with a high density of ruderal plants (food resource). In Al-Barrah itself, the total area occupied by breeding serins

had decreased by 25% since the most recent survey, in 1996. The marginal areas of the breeding distribution of 1996, in Al-Barrah, were unoccupied in 1999, suggesting a possible decrease in population size. The population was estimated at 500 pairs, c. 480 of them in Al-Barrah. The total population had, since 1996, decreased by c. 20%.

In general, the drought conditions had the following impacts on the breeding habitat at Al-Barrah. There was a decrease in the density of annuals, compared to previous years (Khoury 1998), and seed-production by many plant species including food plants of *Serinus syriacus*. This problem was magnified by additional grazing pressure in Al-Barrah in winter 1998–1999. Grazing is usually permitted in winter, allowing annuals to develop following the rainy season; unlimited and uncontrolled / illegal grazing activities were, however, frequently observed in the reserve until May. There was a decrease in natural, remnant water pools within breeding areas. The species usually avoids areas, at all seasons, that do not possess water pools or springs (Khoury 1998).

It is unclear if the decrease in breeding pairs was solely the result of a reduction of survival rates due to natural causes, i.e. drought conditions. These conditions also enhanced the effect of certain activities (increase in grazing pressure, wood cutting etc.) adding to further reduction of habitat quality and to enhanced soil erosion and general degradation (Evans & Mashaqbah 1995, Khoury 1998). The human impact, especially overgrazing, could certainly play a major role in maintaining a decline in the *Serinus syriacus* breeding population of south-west Jordan, if uncontrolled. The destruction of breeding habitat, due to the unsustainable use of Al-Barrah, cannot be solved by simple protection measures. Socio-economic aspects must be considered, as the community of the neighbouring town of Al-Qadissiyah is, currently at least, highly dependent on animal husbandry.

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The first Three-banded Plover *Charadrius tricollaris* in Egypt and the Western Palearctic

RICHARD HOATH

DAVIDSON & KIRWAN (1998) noted that a second Three-banded Plover *Charadrius tricollaris* had been recorded in Egypt and the Western Palearctic, at Aswan on 14 December 1997, but the first, in March 1993, had never been formally described. Given the importance of documenting first records and having seen the 1993 bird, the following observations based on my field notes, sketches and photographs serve as a formal report of the bird's occurrence.

On 5–26 March 1993, a Three-banded Plover was at Gebal Asfar, Cairo. It was first discovered by Mashuq Ahmad and Martin Elliott. I visited the area on 19 March 1993 when I sketched and photographed the bird for c. 30 minutes in the company of Dr Derek Russell, who concurred with the identification. I have experience of Three-banded Plover in Tanzania, Namibia and South Africa.

On the morning of 19 March, we arrived Gebel Asfar and headed for a shallow freshwater pond surrounded on three sides by *Phragmites*. The fourth side included open areas of exposed silt where we noted several species of wader. At 09.15, the Three-banded Plover, flew in to join a Little Ringed Plover *Charadrius dubius*, permitting close comparison of the two. Throughout the observation the bird fed on the silt bed. The following details were noted.

Description. Typical *Charadrius* plover but much more boldly marked and darker above than accompanying, smaller and 'stubbier' Little Ringed Plover. Upperparts uniform dark grey/brown with no apparent scalloping. Underparts white with two very distinct black bands across the lower and upper breast. Lower black band significantly broader than the upper black band. Facial region to upper breast band greyish. White supercilium extended above eye and around back of head forming a complete white ring. Crown concolorous with upperparts. Forehead white, continuous with supercilium. Bill strikingly red with black tip. Red orbital ring very distinctive even at c. 40 metres. Legs pinkish. Apart from when the bird first arrived, when details of the wing and tail pattern went unnoted, the bird was not seen in flight.

Discussion

The distinctive patterning of the breast, facial region and crown, and bare-parts coloration precluded confusion with any *Charadrius* plover previously recorded in the region (Heinzel *et al.* 1995). The only possible confusion species is Forbes's Plover *Charadrius forbesi* of West and Central Africa, with which it forms a superspecies (Hockey & Douie 1995). This species lacks the clear white forehead of Three-banded Plover, and has less red on the bill. The striking head pattern of the Gebel Asfar bird, white as opposed to buffish forehead and lack of scalloping on the upperparts suggested it was adult. The entirely white forehead and pale facial region indicated that it was of the nominate race and not the Malagasy *bifrontatus* (Hayman *et al.* 1986). Hockey & Douie (1995) recognize a third subspecies, *pelodromus*, in the north and east of the species' range based on its browner mantle and broader lower breast band, but this taxon is apparently considered unacceptable by del Hoyo *et al.* (1996). It is impossible to subspecifically identify the Gebel Asfar bird from the author's photographs, although given its range *bifrontatus* would appear the most likely race to occur in Egypt. From the photograph published in *Birding World* (6: 100), it does not appear possible to safely identify the bird to subspecies.

Three-banded Plover is usually considered sedentary throughout its extensive range in East, Central and southern Africa (Hayman *et al.* 1986), but there is some evidence of local movements in response to rainfall (Rosair & Cottridge 1995). Indeed, Hockey & Douie (1995) state that records to the north and west of its usual range 'could be considered migration' and go on to state that ringing studies have demonstrated movements of at least 260 km and 'probably much greater'; del Hoyo *et al.* (1996) state that non-breeders appear in Cameroon and Nigeria during the dry season (August–February) and that, in Ethiopia, the species is only present in March–April and July–December. Nikolaus (1987) notes the species' occurrence, on Sudan's Red Sea coast, to within 300 km of the border with Egypt. Given this, and the fact that the species is apparently unknown in captivity in Egypt, it appears safe to regard the Gebel Asfar bird as the first wild Three-banded Plover in Egypt and the Western Palearctic. This is supported by the subsequent record of the species at Aswan.

Heinzel *et al.* (1995) make reference to a Three-banded Plover record in Israel but it is believed that this is in error and the record referred to is the Gebel Asfar bird.

ACKNOWLEDGEMENTS

The Gebel Asfar Three-banded Plover was first brought to the author's attention by Sherif and Mindy Baha El Din. However, the ultimate credit for this record must go to Mashuq Ahmad and Martin Elliott who first discovered the bird and alerted Derek Evans and the Egyptian ornithological community to its presence.

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The first Namaqua Dove *Oena capensis* in Cyprus

CHRIS AND DENISE LAMSDELL

IN THE EARLY AFTERNOON of 16 April 1998, CL walked a track adjacent to some small cultivated fields by the Tomb of the Kings at Paphos. Approaching an old tractor, he flushed a small dove from the sandy track towards a disused building, from where it was flushed again and flew off strongly. CL's impression was of a small long-tailed dove (resembling a Mourning Dove *Zenaida macroura*) with reddish brown in the wing. He continued to the beach and when returning flushed it from the track again. It flew to a recently ploughed plot and commenced feeding. On the ground its shuffling walk on short legs was reminiscent of a ground-dove *Columbina* spp. Later that afternoon, at 16.00, the bird was relocated at the Tomb of the Kings and also seen by DL. Reference to Jonsson (1992) suggested Namaqua Dove *Oena capensis* as a

possible identification, due to the reddish primaries, but the lack of full details or a picture of the species prevented a conclusive identification. The bird was relocated on 18 April, again on the track by the old tractor and subsequently in the newly ploughed plot. On this occasion, the bird was shown to two other observers, and reference to Heinzel *et al.* (1972) confirmed the bird's identification as a female Namaqua Dove.

Description: Size smaller than Collared *Streptopelia decaocto* or Turtle Doves *S. turtur*. Head, neck and mantle similar in colour to Collared Dove, but greyer in tone with a purple sheen. Throat grey-purple. Eye black. Underparts whitish. Wing-coverts slightly paler grey than mantle. Dark brown mark on inner web of greater-coverts. Closed primaries black with areas of reddish brown. In flight, these had prominent reddish-brown patches. The secondaries were grey/purple with paler grey fringes. Tail long, longer than body and black with white tips to some feathers. One tail shaft broken. Tail shape similar to Mourning Dove (appearing diamond-shaped in flight). Short reddish-orange legs. Long bill black with a yellow band near tip and relatively fine. Upper mandible broader at base, narrowing at tip, presenting a decurved appearance. Bill appeared large in relation to the bird's overall size.

Namaqua Dove is principally a resident, although it performs seasonal and/or nomadic movements, in sub-Saharan Africa, Madagascar and Arabia. The nearest populations to Cyprus are those in Israel and Jordan, and there is evidence of range expansions in Arabia and Israel since the mid-1970s (del Hoyo *et al.* 1997). The night of 15 April had been dominated by strong northerly onshore winds and thunderstorms, and the next day a Caspian Plover *Charadrius asiaticus*, Black-winged Pratincole *Glareola nordmanni* and Trumpeter Finch *Bucanetesgithagineus* were all found on the island. This record is the first in Cyprus and has been accepted by the Cyprus Ornithological Society (1957) Rarities Committee.

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The first Common Mynah *Acridotheres tristis* in Egypt

LINDA MILLINGTON

WHILE SEARCHING for migrant raptors with Lisa Truitt at Ain Sukhna, 35 km south of Suez on 22 April 1998, we stopped at the Fangary Rest, a snackbar on the beach. Fawzy Fangary, the proprietor, called my attention to a bird attracted to his pigeon house. I swiftly identified it as a Common Mynah *Acridotheres tristis*. The bright yellow bill and V-shaped yellow patch extending behind the eye were striking, which together with the black head, brown body and white wing patches were the salient identification features. Fawzy subsequently informed me that he had first seen the bird on 20 April 1998.

Size and shape. Slightly larger or similar size to Starling *Sturnus vulgaris* with a similar shape, but crown flatter with a raised bump on the forehead. Stout bill, short tail and typically strong legs and feet of starling family with long hindclaw.
Head. Glossy black hood extended onto nape and around eyes becoming browner black and dark smoky brown on the mantle. Eye surrounded by bare bright yellow skin, broader behind and below but narrower above and in front of eye.
Upperparts. Entirely dark grey/brown, slightly paler on rump. Principally blackish wings with broad white wing patch and second, much smaller, white area at bend of wing. Secondaries browner, feathers centres darker and tertials edged black.
Underparts. Mainly a paler brown/grey than upperparts, blacker on lower flanks and whiter on vent.
Tail. Uppertail black with tail feathers white-tipped at corners and dirty white undertail-coverts.
Bare parts. Eye dark, bill bright yellow and legs yellow/green to straw coloured.
Calls. No calls heard.

Plate 1. Common Mynah *Acridotheres tristis*, Ain Sukna, Egypt, 2 May 1998. (*Linda Millington*)

I found no previous records of the species in Egypt in Goodman & Meininger (1989). A week later, on April 29, I returned to Ain Sukhna with others including Sherif and Mindy Baha el Din and Rosemary Venner. Fawzy greeted us with the news that the bird had been shot at with an air rifle that morning. We subsequently spent approximately one hour photographing the bird, which although moving around, spent most of its time by a crate on the thatched roof of the pigeon coop. It appeared to be wounded and it apparently expired the next day. I retrieved the carcass from Fawzy on 2 May 1998 and the specimen is retained by the Egyptian bird recorder, Sherif Baha el Din.

According to Porter *et al.* (1996), the species is resident in south-east Iran but colonies in Kuwait, United Arab Emirates, Qatar, Oman and Saudi Arabia have almost certainly originated from captive birds. Subsequently, a pair nested in Ankara, Turkey in 1996 and 1997, 2–6 birds were in Istanbul, Turkey on 22 June and 1 July 1997 (Boyla & Eken 1998) and the species has been discovered in one area in southern Iraq (Salim 1998). The nearest breeding areas are in western Saudi Arabia, at Jeddah on the Red

Sea south of Ain Sukhna, and it is just possible that this record could refer to dispersal from this area. There is evidence of small-scale movements by the now naturalised populations in the UAE (Richardson & Aspinall 1997). Common Mynah is not usually seen in pet stores in Cairo, 140 km west of Ain Suhkna, and this bird exhibited none of the typical signs of an escaped cagebird. Nonetheless, it has been deliberately or accidentally introduced to many parts of the world, e.g. South Africa, Australasia, Central Asia, islands in the Atlantic and Indian Oceans (Feare & Craig 1998), and it appears relatively unlikely to have reached Egypt without human assistance. Given the bird's occurrence close to one of the busiest shipping routes in the world, there would seem to be a strong possibility that it was a ship-assisted arrival.

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Thanks to Mindy Baha el Din and Andrew Grieve for comments and assistance in preparing this note.

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Interesting ornithological observations from Yemen in spring 1998

PHIL HANSBRO AND DAVE SARGEANT

DURING A VISIT TO YEMEN on 27 March–8 April 1998, a number of significant ornithological observations were made that advance our collective knowledge of the status and distribution of several species in this little-visited country. Details of two species previously unrecorded in Yemen—Little Tern *Sterna albifrons* and Red-billed Oxpecker *Buphagus erythrorhynchos*—have been presented previously (Hansbro & Sargeant 1999 a,b). Here we present additional observations of rarities, scarce migrants and breeding birds, birds of contentious identification or taxonomy, and high species counts.

Red-billed Tropicbird *Phaethon aethereus*
An adult flew into a rock crevice at Little Aden and did not reappear for at least 90 minutes on 4 April, and was presumed to be breeding. This is the first suspected nesting record from between Ras Fartak in the extreme east and Jezat Saba, south of Perim island in the west (Porter *et al.* 1996).

Night Heron *Nycticorax nycticorax*
Adult at Al Khawkah on 2 April and two first-years at Aden marsh on 4 April. There are six records of 12 birds in North Yemen (Brooks *et al.* 1987) and three records of singles in southern Yemen (Porter *et al.* 1996).

Plate 1. Black-headed Heron *Ardea melanocephala*, Aden marsh, Yemen, 5 April 1998. (*Phil Hansbro*)

Black-headed Heron *Ardea melanocephala*
One adult on 4 April and two adults on 5 April at Aden marsh (Plate 1). Prior to early 1996, known, in Yemen, from just two records in November 1996 (Porter *et al.* 1996) but recorded with some frequency since and the species is now suspected to breed at Aden marsh (R. F. Porter pers. comm.).

Glossy Ibis *Plegadis falcinellus*
Sixty-five at Aden marsh on 5 April is the second highest count of the species in southern Yemen (see Porter *et al.* 1996).

African Spoonbill *Platalea alba*
Four adults at Aden marsh on 4–5 April. Several recent records, all since early 1996, and suspected to breed at Aden marsh (R. F. Porter pers. comm.).

Marsh Harrier *Circus aeruginosus*
One on 4 April and two on 5 April, at Aden marsh, were all immatures. The species is a scarce passage migrant through southern Yemen, with only one previous April record (Porter *et al.* 1996).

Montagu's Harrier *Circus pygargus*
An immature male at Aden marsh on 5 April. Previous records in southern Yemen exist only for January, February and October (Porter *et al.* 1996).

Greater Spotted Eagle *Aquila clanga*
A second-year at Aden marsh on 4–5 April is the first spring record in southern Yemen (Porter *et al.* 1996).

Saker Falcon *Falco cherrug*
An adult at Kawkaban on 28 March. Brooks *et al.* (1987) knew of only eight records in North Yemen.

Peregrine Falcon *Falco peregrinus*
An adult female at Aden marsh on 4–5 April is the first record outside November–January in southern Yemen (Porter *et al.* 1996).

African Scops Owl *Otus senegalensis*
Five heard (one seen) at Jabel Burra on 29 April. There are few previous records in North Yemen (Brooks *et al.* 1987).

Grey-headed Kingfisher *Halcyon leucocephala*
One at Wadi Lahimah on 29 March is the earliest North Yemen record (Brooks *et al.* 1987). Additionally, one at Wadi Warazan on 6 April.

Arabian Woodpecker *Dendrocopos dorae*
Four at Sawali Pass, 15 km south of Ibb, on 7 April appears to be a new site for this localised species.

House Martin *Delchion urbica*
Four at Jabel Sabir on 3 April. A rare spring migrant and winter visitor in North Yemen (Brooks *et al.* 1987). Two records (November and February) in southern Yemen (Martins *et al.* 1996)

Nightingale *Luscinia megarhynchos*
Two singing at Wadi Warazan on 6 April. Identified on the basis of the warm brown mantle coloration, lack of breast streaking and song, that sounded very similar to birds in the U.K. Only three previous spring records in Yemen but apparently more common on autumn passage (Brooks *et al.* 1987, Martins *et al.* 1996).

White-throated Robin *Irania gutturalis*
Single males at Wadi Dahr on 27 March and Wadi Al Wagr on 2 April were the earliest spring records in Yemen (Brooks *et al.* 1987, Martins *et al.* 1996).

Gambaga Flycatcher *Muscicapa gambagae*
One at Al Mahwit on 28 March, two at At Turba on 6 April and three at Sowali Pass on 7 April. Identified by call, head shape, pale lower mandible and lack of breast streaking. These are the earliest records in Yemen, the previous earliest being on 13 April (Brooks *et al.* 1987).

African Reed Warbler *Acrocephalus baeticatus.*
At least ten singing in mangroves 3.4 km north of Hodeidah on 31 March. Birds from north-east Africa and the Red Sea coast of Saudi Arabia were named *A. b. avicenniae* by Ash *et al.* (1989), but subsequent studies (Leisler *et al.* 1997) have demonstrated that these populations' mtDNA is closer to European Reed Warbler *A. scirpaceus*, from which it differs in song, upperparts coloration, wing and foot structure, and habitat preferences. Leisler *et al.* (1997) propose its recognition as a separate species: Mangrove Reed Warbler *A. avicenniae*.

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The limits of the Western Palearctic

MAGNUS ULLMAN

Recently, Martins & Hirschfeld (1998) argued that much of Arabia is best treated within the Western Palearctic. I agree, the boundary selected by *BWP* is highly arbitrary and does little to clarify the relationships of the Middle East avifauna. However, I dispute their suggestion that most of the south-western fringe of the peninsula, as well as a small area in the Yemen / Oman border zone (Mahrah / Dhofar), actually belong to the Afrotropical faunal region.

The authors, from a position on the western ramparts of Yemen, viewing the Tihamah, note the significant Afrotropical element to the avifauna and exclaim, 'What a lot of African birds down there, this region must be Afrotropical'. They are correct. There is a high *percentage* of Afrotropical birds in this region, but they would have been equally justified in, for instance, looking across the Red Sea from highland Ethiopia and stating, 'What a poor avifauna in western Arabia—there are so few species'.

If you compare the proportion of Palearctic and Afrotropical birds within a certain region—as Martins & Hirschfeld do—you must also take into consideration the number of species 'present', i.e. the number of species that breed in the vicinity in question. In the present case, this area is essentially south-western Saudi Arabia and Yemen, and the Mahrah / Dhofar range, see Map 10 (Martins & Hirschfeld 1998); here I simply call it '*south-west Arabia*'. From the disputed area, I examined the neighbouring region of Africa, i.e. broadly speaking Sudan (except the western fringe), Ethiopia, Eritrea, Djibouti, Somalia and northern Uganda and Kenya. I compared this undisputedly Afrotropical zone ('*the Afrotropical cut*') to the nearest essentially Palearctic area of similar size, i.e. approximately the rest of Arabia north to a line from Kuwait to the Gulf of Aqaba ('*the Palearctic cut*'). My calculations are not as minute as those presented by Martins & Hirschfeld, but I feel they suffice. A total (irrespective of origin) of 646 species breed in '*the Afrotropical cut*' plus '*south-west Arabia*'. However, 506 of these are absent from '*south-west Arabia*', i.e. only c. 22 % are present. A total of 195 species breed in '*the Palearctic cut*' plus '*south-west Arabia*'. Of these, only 35 species are absent from '*south-west Arabia*', thus c. 82 % are present, demonstrating the strong affinities between the south-west highlands and the rest of Arabia. A major contributory factor to this is the relatively low breeding species

diversity (compared to the Afrotropics). While a relatively large percentage of the birds of '*south-west Arabia*' are of Afrotropical origin, the large numbers of such species whose distributions do *not* straddle the Red Sea belies any strong affinity between the two regions.

Some may argue that this comparison is unfair because the wider habitat diversity in Africa inevitably supports more species. Certainly this is so, and perhaps this is the main point. This actually is the prime reason why the African avifauna is sufficiently different from that of Arabia, that it does not make sense to view them as belonging to the same faunal region.

Moreover, faunal division is a device applied by humans to make the world more readily understandable. It should, therefore, be used with discretion. Just west of Sohar, Oman, I once visited a small area where Indian Roller *Coracias benghalensis*, Purple Sunbird *Nectarinia asiatica*, Indian Silverbill *Lonchura malabarica* and Little Green Bee-eater *Merops orientalis* bred. Thus 75% were Oriental species and 25% Paleotropical! Even Martins & Hirschfeld would hesitate to proclaim this area (c. 175 x 220 m) as Oriental. Boundaries between faunal regions should be kept, where possible (in many cases it is not), relatively simple. Regard all of Arabia as Western Palearctic!

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REVIEWS & Recent Literature

Grimmett, R., Inskipp, C. & Inskipp, T. (1998) *Birds of the Indian Subcontinent*. A. & C. Black, London. pp 888, 153 colour plates, many distribution maps, £55.

Despite its bulk and price tag, this fine work should revolutionise birding in the Indian zoogeographical realm. The illustrations—the work of 12 artists—are almost invariably immaculate; indeed, they are one of the finest set of plates I have seen in a non-European country / regional identification guide. The authors, all acknowledged experts on the avifauna of the area, match this standard. This book, along with several volumes in preparation covering other countries in the Oriental region, follows the taxonomy and nomenclature of the recent OBC Checklist, and is thus based around the Sibley & Monroe sequence. If you are not planning to visit India or related regions but esteem fine bird books, this is still a recommended purchase.

Guy M. Kirwan

Jaman, S. K. & Meakins, R. (1998) *Biodiversity of animals in Kuwait*. Center for Research and Studies on Kuwait, Almansouria. pp 215, several colour plates, no price.

Intended as an introduction to some of the animals to be found in the country. The scope is principally limited to Arthropoda and Chordata, and a small number of species have been chosen to illustrate diversity across Orders and Classes. The illustrations, which are not always very accurate, were produced by the first author.

Charles Pilcher

Madge, S. & Burn, H. (1999) *Wildfowl*. A. & C. Black, London. pp 298, 47 colour plates, 153 colour distribution maps, several line drawings, £29.99.

The fourth reprint of this popular title, although there is still no softback (= cheaper?) option on this side of the Atlantic. Mandatory for wildfowl enthusiasts, but, given the appearance of *Handbook of the birds of the world* in the period between this work's first appearance and the present, probably dispensable for other observers.

Madge, S. & Burn, H. (1999) *Crows and jays*. A. & C. Black, London. pp 192, 30 colour plates, 120 colour distribution maps, several line drawings, £16.99.

Welcome paperback edition of this otherwise unchanged monograph. Given some recent developments in taxonomy, and knowledge of the status, range and natural history of other species within the grouping, a revised work could have been warranted. The review copy's type at least is, however, rather unattractive and far from easy-on-the-eye. Nonetheless, the lower price and slimline nature of this reprint may attract new purchasers.

Zimmerman, D. A., Turner, D. A. & Pearson, D. J. (1999) *Birds of Kenya and northern Tanzania*. A. & C. Black, London. pp 576, 124 colour plates, many distribution maps, several line drawings, £16.99.

Welcome appearance in paperback for this already classic work on East African birds. Designed for in-the-field use, this guide will be welcomed by those who like to carry an adequate identification guide with them. Nonetheless, it is not envisaged as a cheap alternative to the hardback edition as the textual information has been heavily abridged in order to condense the work sufficiently to fit within the soft covers. In conducting this revision, the opportunity has been taken by the authors to add some new information to existing accounts and provide new texts for recent vagrants to the region. Highly recommended.

Guy M. Kirwan

RECENT LITERATURE

Compiled by Guy M. Kirwan & Effie Warr

This review, which is produced annually, principally covers papers published in the West European literature considered to be most relevant to birders resident in the region. All were published in 1999 unless otherwise stated.

REGIONAL

Aymí, R. Identification of adult male yellow wagtails in winter plumage in western Europe. *Dutch Birding* 21: 241–253.

Casement, M. Landbirds from ships at sea. *Sea Swallow* 48: 24–35 [includes observations from Red Sea and Gulf of Aden, Arabian Sea, and Persian Gulf and Gulf of Oman].

Clement, P. Kennzeichen und Taxonomie von Bechsteindrossel *Turdus ruficollis* und Naumanndrossel *T. naumanni*. *Limicola* 13: 217–250.

Corso, A. Separating juvenile Imperial and Greater Spotted Eagles, in particular of pale morph '*fulvescens*'. *Dutch Birding* 21: 150–151.

Corso, A. Sexing of juvenile Montagu's Harrier. *Dutch Birding* 21: 189–192.

D'Aloia, M.-A. & Griffiths, R. Molecular sexing of the Houbara Bustard, *Chlamydotis undulata*, and other arid-land species. *Zool. Middle East* 18: 33–40.

Gorman, G. The identification of Syrian Woodpecker. *Alula* 3: 82–88.

Gruber, D. Identification of juvenile and immature Baltic Gulls. *Dutch Birding* 21: 129–147.

Jiguet, F. *et al.* A hybrid South Polar Skua x Brown Skua. *Birding World* 12: 118–122.

Page, D. Identification of Bonelli's Warblers. *Brit. Birds* 92: 524–531.

Rauste, V. Kennzeichen und Mauser von "Baltischen Heringsmöwen" Larus [fuscus] fuscus und "Tundramöwen" *L.* [*fuscus*] *heuglini*. *Limicola* 13: 105–128, 153–188.

Sangster, G. Trends in systematics. Relationships among gulls: new approaches. *Dutch Birding* 21: 207–218.

Saniga, M. Aspects of breeding habitat and behaviour of Wallcreeper. *Dutch Birding* 21: 154–159.

Scott, M. *et al.* Little known Western Palearctic birds: Mountain Chiffchaff. *Birding World* 12: 163–167.

Székely, T. *et al.* Brood desertion in Kentish plover: sex differences in remating opportunities. *Behav. Ecol.* 10: 185–190 [studies in Turkey].

Székely, T & Cuthill, I. C. Brood desertion in Kentish plover: the value of parental care. *Behav. Ecol.* 10: 191–197 [studies in Turkey].

Ullman, M. Bill shape of South Polar Skua. *Dutch Birding* 21: 160.

EGYPT

Murdoch, D. Birding the Red Sea. *Birding World* 12: 75.

ISRAEL

Granit, B. Thick-billed Lark—a new breeding bird for Israel. *Birding World* 12: 240–241.

Hatzofe, O. Embryonic ecophysiology of Griffon Vulture *Gyps fulvus*, eggs. *Vulture News* 40: 43–44.

Shirihai, H. & Alon, D. Hula Valley—a wintering hotspot for birds in the Western Palearctic. *World Birdwatch* 21: 8–10.

Shirihai, H. *et al.* Birding hot-spots of Israel. *Alula* 3: 93–108.

Uhlig, R. & S. Ein auffälliger Haussperling vom Toten Meer in Israel. *Orn. Mitt.* 51: 345–347.

SAUDI ARABIA

van Heezik, Y. & Seddon, P. J. Seasonal changes in habitat use by Houbara Bustards *Chlamydotis* [*undulata*] *macqueenii* in northern Saudi Arabia. *Ibis*: 141: 208–215.

Williams, J. B *et al.* Lizard burrows provide thermal refugia for larks in the Arabian desert. *Condor* 101: 714–717.

TURKEY

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UNITED ARAB EMIRATES

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Launay, F. *et al.* Annual migration of Houbara Bustard *Chlamydotis undulata macqueenii* from the United Arab Emirates. *Bird Conserv. International* 9: 155–161.

Richardson, C. An Arabian Gulf voyage on board the MS Caledonian Star 30 November–17 December 1995. *Sea Swallow* 48: 46–48.

Uhlig, R. & S. (1998) Beobachtungen an Gebäudebrütern der Steinschwalbe *Hirundo obsoleta* in den Vereinigten Arabischen Emiraten. *Monticola* 8: 113–115.

YEMEN

Stanford, W. (1997–98) Arabia Felix. *Adjutant* 27: 35–39 [account of a birding trip in October 1996].

Around the Region

compiled by
Chris G. Bradshaw

Records in *Around the Region* are published for interest only; their inclusion does not imply acceptance by the records committee of the relevant country. Some records have been authenticated, and these are usually indicated. All records refer to 1999 unless otherwise stated.

Records and photographs for *Sandgrouse* 22 (2) should be sent, by July 15, to Around the Region, OSME, c/o The Lodge, Sandy, Bedfordshire SG19 2DL, U.K.

Bee-eaters
Merops apiaster
by D. Powell

A **Slavonian Grebe** *Podiceps auritus* at Al Jaboul appears to be the first definitive report for Syria. In Israel, a **Mascarene Shearwater** *Puffinus atrodorsalis* was reported at Eilat North Beach on 15 May. A **Leach's Storm-petrel** that flew into a window at Eilat on 7 September and subsequently died on 9th represents the first record for Eilat and the second for the Red Sea area. In Yemen, the first two breeding colonies known for **Jounanin's Petrel** *Bulweria fallax* were found on Socotra in May.

A **Goliath Heron** *Ardea goliath* at Shuwaiyhat on 6 September would represent the first record for UAE if accepted, whilst the ninth **Eurasian Bittern** *Botaurus stellaris* for UAE was at Zabeel fish ponds on 29 November. Also in UAE, the first **Lesser Flamingo** *Phoenicopterus minor* was at Khor Dubai on 9–12 November, with the sixth **White Pelican** *Pelecanus onocrotalus* at the same locality on 6–9 November. In Iran, 41 **Dalmatian Pelicans** *Pelecanus crispus* were seen at several locations on Qeshm Island on 4 December. The first **Yellow-billed Stork** *Mycteria ibis* for Qatar was at Dhakhira lagoon on 4–6 November, but the possibility that it was of captive origin cannot be ruled out.

In the UAE, a **Crested Honey Buzzard** *Pernis ptilorhynchus* still in Abu Dhabi on 30 May had wintered, while in November two immatures were at Zabeel fish ponds on 24–25th. These represent the 10th–12th records for UAE. Potentially Iran's first Crested Honey Buzzard was seen in the south-west of Qeshm Island on 3 December. With less than 25 previous authenticated records in the UAE, up to two **Hen Harriers** *Circus cyaneus* at Al Wathba on 15 October–4 November and Al Ain on 19–25 November are noteworthy. At Eilat, the second **Shikra** *Accipiter badius* for Israel was trapped and photgraphed on 2 May. The previous record was also at Eilat on 20 April 1987. A Shikra seen on Qeshm Island, Iran on 3 December may represent the southernmost record in Iran. A **Sooty Falcon** *Falco concolor* seen at Dana, Jordan on 15 April was rather early. The 16th **Merlin** *Falco columbiarius* for UAE was at Al Wathba from 28 October to 11 November.

A Purple Gallinule *Porphyrio porphyrio* present at Azraq, Jordan for most of April will, if accepted, constitute the first record for the

country. In Turkey, an adult with two fledged young at Kızılırmak Delta on 27 June is the first confirmation of breeding in the Black Sea Coastlands, with 45 in the same area on 24 October the highest count from this site. A **White-breasted Waterhen** *Amaurornis phoenicurus* at the Emirates golf course from 17 November to 1 December is the tenth record in UAE.

A **Siberian Crane** *Grus leucogeranus* (Plate 1) was found in captivity at Gerze, near Sinop, Turkey, in early June. It is now known that this bird first appeared in the the area two or three years ago, and was taken into captivity by a local man. It has been traced to the Oka Biosphere reserve in Russia, from where it escaped on 30 August 1996 and apparently joined a group of local-breeding migrant **Cranes** *Grus grus*. Attempts are now being made to return it to Oka. In Oman, a **Crested Coot** *Fulica cristata* at East Khor, Salalah from 7 November is the second recent claim from the country.

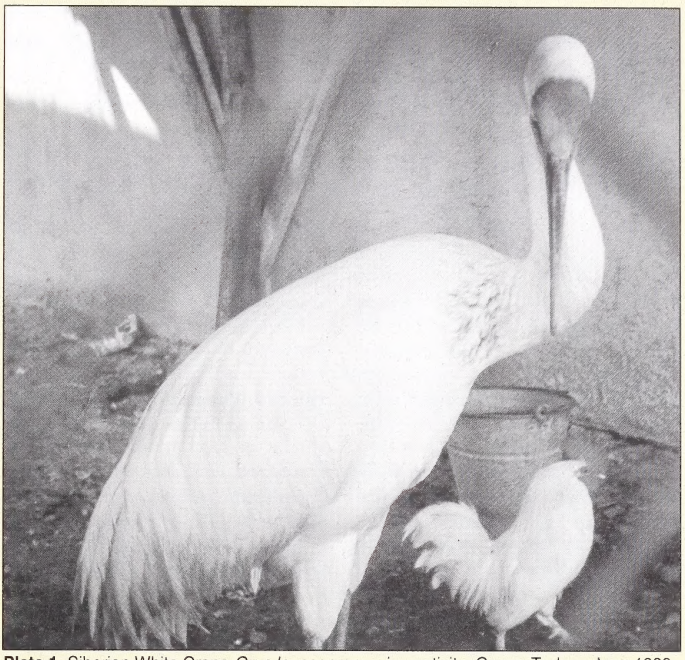

Plate 1. Siberian White Crane *Grus leucogeranus*, in captivity, Gerze, Turkey, June 1999. (*Pete Combridge*)

Three **Crab Plover** *Dromas ardeola* on Hassah Beach on 8 June were the first in Dubai Emirate for five years. Much larger counts of Crab Plovers came from Qeshm Island, Iran where 539 were present on 2–4 December. This included 213 at Hara reserve (mangrove forest) and 159 on Tula-Holor mudflats on 4 December. Three or four **Caspian Plovers** at Paralimni on 3–4 May were the 9–12th records in Cyprus, while in Turkey, a first-summer was at Tuzla Gölü, Çukurova, on 8 June (Plate 2) and another was at Kızılırmak Delta on 17 October. Also in Turkey, at least two pairs of **Greater Sand Plovers** had newly-hatched chicks at Yay Gölü, Sultan marshes, in early July, while at least one pair each of **Collared Pratincole** *Glareola pratincola* and **Spur-winged Plover** *Hoplopterus spinosus* were apparently nesting at Bulanık, Turkey on 22–23 June, providing significant breeding range extensions from the centre of the country. In UAE, a count of 17 **White-tailed Plovers** *Vanellus leucurus* was made at Dubai sewage works pits on 9 September. A **Golden Plover** *Pluvialis apricaria* at Khor al-Beida on 12 November and a first-winter **Sociable Plover** *Chettusia gregaria* at Al Ain camel track on 8–19 November represent the 11th and 12th records. Israel's first **Oriental Pratincole** was reported from Eilat km 20 pools on 7 April, whilst **Black-winged Pratincoles** present at Al Wathba on 18–22 October and the Al Ain camel track on 30 October represent only the eighth and ninth records for UAE. A **Long-billed Dowitcher** *Limnodromus scolopaceus* was at Sohar, Oman on 4–5 November, whilst a **Knot** *Calidris canutus* at Larnaca sewage works on 24 August would be the 13th record in Cyprus, if accepted. On the same island, two **Pomarine Skuas** *Stecorarius pomarinus* off Baths of Aphrodite on 5 October and a different bird there on 7 October will be the third and fourth records if accepted. Two flocks of **White-winged Black Terns** *Childonias leucopterus* totalling an impressive 24,000 on 1 May must have been an amazing sight.

Plate 2. First-summer Caspian Plover *Charadrius asiaticus*, Tuzla Gölü, Çukurova, Turkey, 8 June 1999. (*Richard F. Porter*)

In Turkey, a pair of **Spotted Sandgrouse** *Pterocles senegallus* seen at Birecik on 20 June constitutes the second record for Turkey, the previous record also being at Birecik on 16 July 1986 (Martins 1989). In UAE, a Spotted Sandgrouse that came to drink at Al Wathba with flocks of Chestnut-bellied Sandgrouse *Pterodes exustus* for several days from 28 October to 11 November represents a 250-mile easterly range extension from the Saudi Arabian border. Two **Pin-tailed Sandgrouse** *Pterocles alchata* at the Emirates golf course, UAE on 13 June was the fourth record of a species that is apparently increasing in numbers, although this may be attributable to introductions. In Oman, an **African Collared Dove** *Streptopelia roseogrisea* was singing at Taqah on 10 November, while a **Stock Dove** *Columba oenas* at Salalah on 5 November would be the second record for Oman, if accepted.

The seventh **Long-eared Owl** *Asio otus* in the UAE was at Al Ghar on 14 October, while a **Tawny Owl** *Strix aluco* at Paphos, Cyprus on 11 August

was notable. An influx of at least 20 **Egyptian Nightjars** *Caprimulgus aegyptius* into Kuwait during September more than tripled the total previously recorded in the country, but unfortunately many were dead. Significant counts of Egyptian Nightjars were also made in UAE, where there were up to nine at Al Ain camel track on 30 March to 4 April and five at Al Wathba on 30 March. A **Pacific Swift** *Apus pacificus* at Al Wathba fields on 24 September would be a first for the UAE (and Middle East), if accepted. A **White-breasted Kingfisher** *Halcyon smyrnensis* reported from Asprokremnos Dam pools on 22 August is potentially the 14th record in Cyprus, while a Pied Kingfisher at Zabeel on 9–26 November would be the 16th record for UAE. **Bimaculated Larks** *Melanocorypha bimaculata* are scarce in autumn on Cyprus, so one at Cape Greco on 17 August was noteworthy. Two pairs of **Short-toed Larks** *Calandrella brachydachtyla* on territory at Subiya are the first definite breeding records for Kuwait. The first **Asian House Martin** *Delichon dasypus* for UAE and the Middle East was claimed at Al Wathba on 14–21 October, while another potential new hirundine for UAE was a **Brown-throated Sand Martin** *Riparia paludicola* at Al Wathba on 4–26 November. On Cyprus, two juvenile **Citrine Wagtails** *Motacilla citreola* were noted at Parthentis Dam on 16 August, with further singles there on 24 August and at Bishop's Pool on 28–30 August, and Cape Greco from 31 August until 19 September, with a final bird at Akhna Dam on 3–22 September. There are few previous autumn records from Cyprus.

In Israel, the first-summer **Grey Hypocolius** *Hypocolius ampelinus* at Eilat km 20 remained until 5 April. Single **Rufous Bush Robins** *Cerotrichas galactotes* reported at Akrotiri Salt Lake on 23 August and Coral Bay on 19 September would be only the 7–8th records for Cyprus since 1992. A male **Pied Stonechat** *Saxicola caprata* at Dibba on on 3 September represents the seventh record for UAE, while a female **Hooded Wheatear** *Oenanthe monacha* at Asprokremnos dam on 13 April will be the seventh record for Cyprus, if accepted. An **Eversmann's Redstart** *Phoenicurus erythronotus* was at Umm al Quwain, UAE on 24–26 November. A **River Warbler** *Locustella fluviatilis* trapped at Smyies, Cyprus on 9 October is the ninth record for the island. In Kuwait, cutting and grazing of reeds at Jahra East Outfall in June revealed the presence of three territories of **Basra Reed Warbler** *Acrocephalus griseldis*, one of **Reed Warbler** *A. scirpaceus* and one of **Moustached Warbler** *A. melanopogon*. None of these species have been definitely recorded breeding in the country before. A Moustached Warbler at Dubai sewage works reedbed on 8–20 November constitutes the 11th record for UAE. A **Yellow-browed Warbler** *Phylloscopus inornatus* at Khalidiya, in Abu Dhabi on 11 November represents the fourth record for UAE. In Iran, at least two **Plain Leaf Warblers** *Phylloscopus neglectus* were at Tiotang, Qeshm Island on 3 December. A female **Collared Flycatcher** *Ficedula albicollis* trapped at Smyies, Cyprus on 27 September will be the first autumn record for the island, if accepted.

In UAE, the first **Long-tailed Shrike** *Lanius schach* for the country was at Khalidiyah, Abu Dhabi on 9–11 September. An **Isabelline Shrike** *Lanius isabellinus* was at Kibbutz Lotan on 20–23 April. A **Steppe Grey Shrike** *Lanius meridionalis pallidirostris* at Yotvata on 10–13 November is the sixth record in Israel. In Syria, two to five **Bearded Tits** *Panurus biarmicus* heard in reeds at Al Jaboul would be the second record for the country, following the first record, involving two at Sed Wadi Abiad on 22 May 1998 (Kirwan 1998). Three **Rose-coloured Starlings** *Sturnus roseus* were in the Hula Valley, Israel on 17 May.

In Israel, a major influx of **Trumpeter Finches** *Bucanetes githagineus* involved up to 600 at Kibbutz Lotan, 500 in the Eilat area and 1000 near Biqat Say'yarim in mid-April. In Turkey two males at Göksu Delta on 13 June constitute the first record for that site and virtually the westernmost record in the country. Also in Turkey, up to 10 **Mongolian Trumpeter Finches** *Bucanetes mongolicus* were in the Van region on 21–22 June, while a female between Ispir and Sivri Kaya on 25 June is an important range extension north and west. The sixth **Common Rosefinch** *Carpodacus erythrinus* for Cyprus was at Akrotiri on 5 May.

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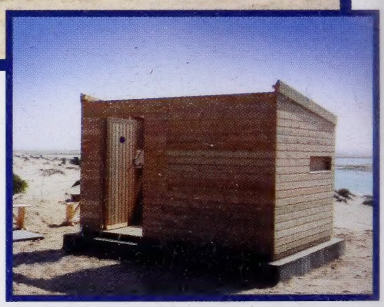

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